# Dairy Situation

Economic Research Service

U.S. Department of Agriculture

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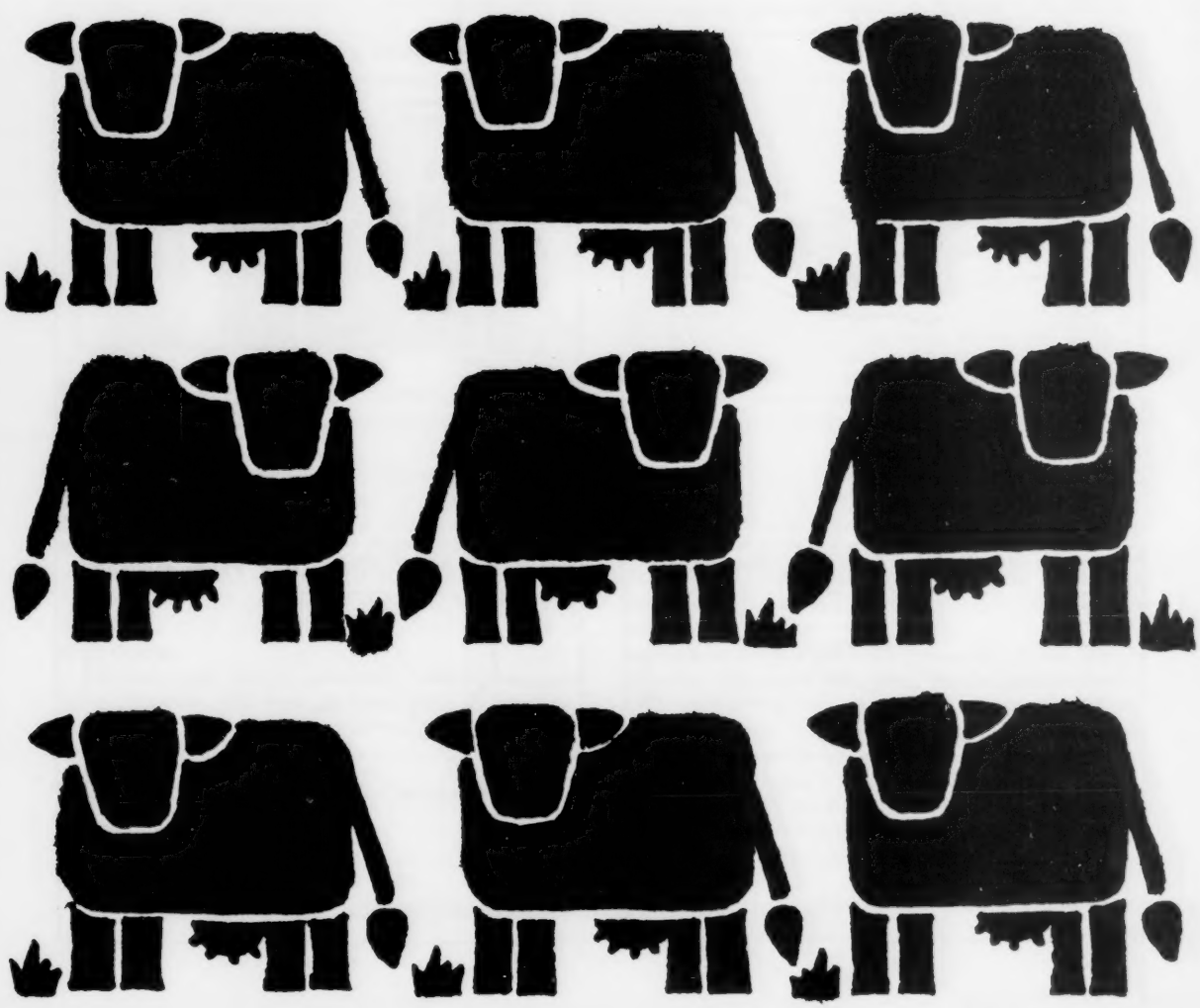

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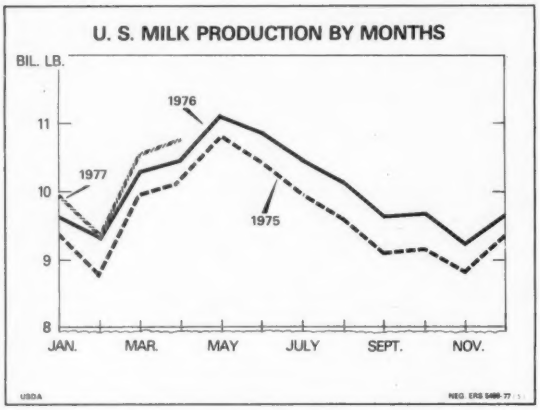
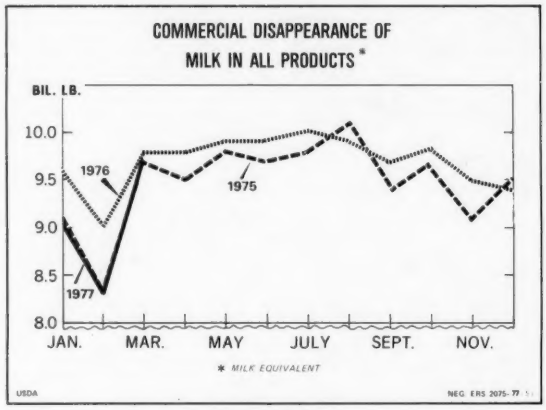



Figure 1

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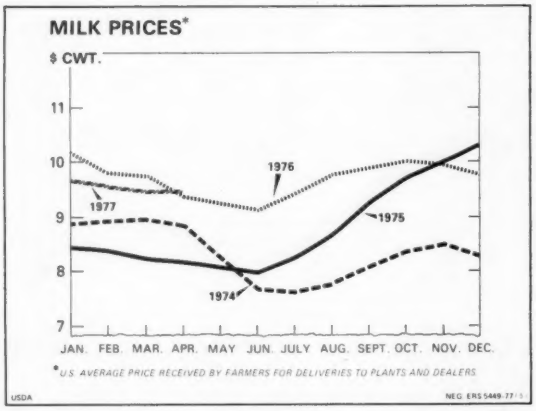


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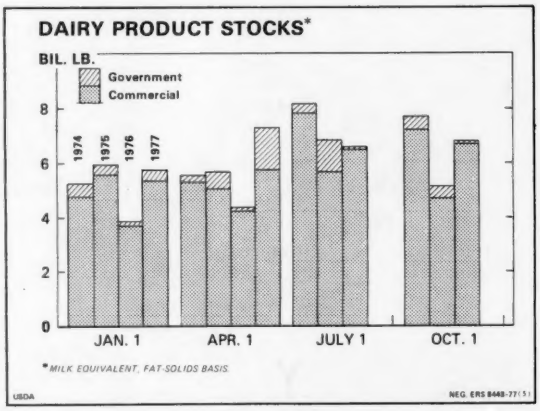


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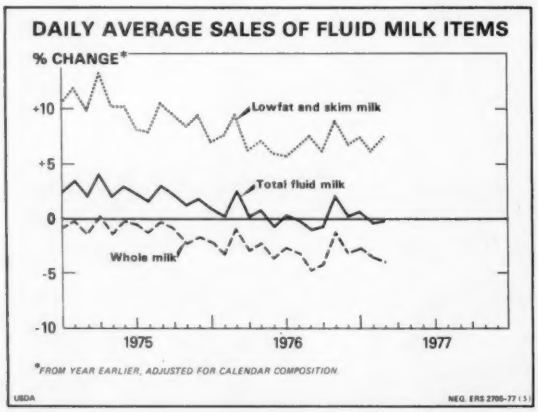


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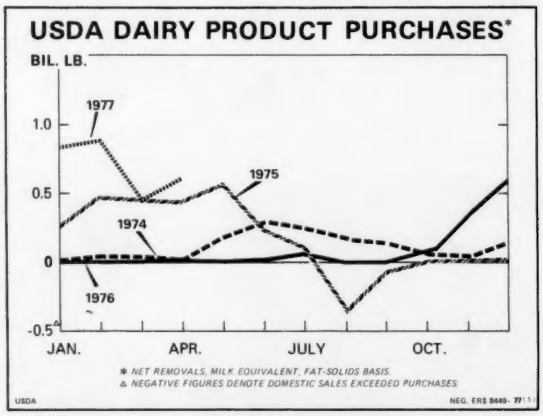


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# SUMMARY


The assurance of higher average farm milk prices is now expected to bring 1977 milk output to about 2-3 percent above the 1976 level, despite expected higher ration costs this spring and summer than a year ago. Even if ration costs run higher than expected, the $9 support price for manufacturing milk probably would slow any drop in milk output.

Higher retail prices, resulting from the support price increase, will tend to limit dairy sales. However, dairy products still will be favorably priced relative to other foods and sales during the rest of 1977 might be strong enough to overcome the weakness in early 1977 and match last year's record.

The year-to-year increases in milk output had slowed to 2½ percent in March and April. Heavy concentrate feeding boosted output per cow, which likely will continue strong during the rest of the year. Despite expected higher cull cow prices and somewhat improved off-farm opportunities, the declines in milk cow numbers will stay small because of the higher milk prices and large supply of dairy replacements. Gains from a year earlier in milk production will pick up if output peaks normally this spring, but second half increases probably will be smaller because of the sharp gains during July-December 1976.

In 1976, farmers marketed the equivalent of 117.3 billion pounds of milk, of which 115.5 billion



The *Dairy Situation* is published in March, May, July, September, and December

pounds was milk sold to plants and dealers. Wholesale marketings of whole milk accounted for almost 96 percent of total milk production, as both farm use and cream marketings continued to decline.

Farmers received an average $9.48 per 100 pounds of milk in April, just 11 cents above a year ago, as the 74 cent increase in the support price had not yet been fully reflected. After an adjustment period, farm milk prices likely will stay close to support level this summer but will average considerably above 1976 during the rest of the year. Seasonal advances in late 1977 probably will be quite modest.

Wholesale dairy product prices have already risen and retail prices will reflect most of the increase in support prices by early summer. Even so, retail dairy prices for all of 1977 likely will average 4-5 percent above a year ago, slightly less than the average for all foods.

First quarter 1977 production of butter and American cheese was up a tenth or more from 1976, as supplies of milk available for manufacturing posted an almost 6-percent rise. With fluid sales expected to hold close to last summer's levels, production of manufactured products probably will be quite heavy this summer.

Prospects for cheese sales this year remain bright. Higher consumer incomes and expected higher retail beef prices probably will outweigh the higher retail cheese prices. Fluid milk sales might hold close to 1976 levels. However, butter sales likely will be smaller and nonfat dry milk use could be well below 1976's weak levels.

With the larger government donations in 1977, per person use of milk and dairy products probably will be higher than 1976's 548 pounds milk equivalent. Per capita consumption of cheese likely will be higher, but per capita use of butter probably will be about the same and per person consumption of most other products may slip.

The demand for seasonal additions to commercial dairy stocks probably will be very weak this spring, in sharp contrast to last year's brisk demand for stocks. Commercial holdings on April 1, of both milkfat and milk solids-not-fat, were more than a third higher than a year ago and the expected heavy output will further dampen demand for stocks.

USDA removals under the price support program were very heavy during the first four months of 1977. The more than 2.7 billion pounds milk equivalent was the most purchased during any January-April period since 1971 and was larger than any annual total since 1972. Almost 88 million pounds of nonfat dry milk were removed as well as the 101 million pounds of butter and 66 million pounds of cheese. Purchases under the price support program are likely to remain large at least throughout the summer and probably will exceed available domestic donation outlets.

Imports of dairy products during the first quarter of the year were somewhat higher than a year ago. Most of the increase was due to higher cheese imports. Meanwhile, commercial exports and shipments to U.S. Territories were stable at fairly small levels.

Early 1977 milk output was up slightly in West Europe, easing from strong levels in New Zealand, but down in Canada and Australia. Except for New Zealand, cheese output was generally stronger than butter-powder production.

# DAIRY SITUATION

## SITUATION AND OUTLOOK

### PRODUCTION

#### Gains In Milk Output Ease

Milk production remained quite strong in April but the increases from a year earlier have slowed substantially from the 6-percent gains of last summer. The 2½ percent rises in March and April were the smallest since November 1975. During the first quarter of 1977, milk output totaled 29.8 billion pounds, up more than 3 percent from a year ago (on a daily average basis).

U.S. milk production

| Month | 1976 | 1977 | Change |
|---|---|---|---|
| | *Million pounds* | *Million pounds* | *Percent* |
| January | 9,607 | 9,910 | +3.2 |
| February | 9,308 | 9,351 | [1] +4.1 |
| March | 10,302 | 10,562 | +2.5 |
| April | 10,480 | 10,741 | +2.5 |
| May | 11,108 | | |
| June | 10,816 | | |
| July | 10,453 | | |
| August | 10,112 | | |
| September | 9,616 | | |
| October | 9,643 | | |
| November | 9,233 | | |
| December | 9,678 | | |
| Total | 120,356 | | |

[1] On a daily average basis.

Thus far in 1977, the variation in the increases in milk output has been almost entirely due to variation in the year-to-year increase in output per cow. Production per cow continued to be boosted by heavier feeding as farmers reportedly fed 2 percent more concentrates on April 1 than a year ago. Although still strong, the slowing of gains in output per cow during recent months may be related to the very tight roughage supplies as well as the less favorable milk-feed price relationships.

The year-to-year decline in milk cow numbers has remained at a half percent thus far this year, a relatively very slow rate. Although slaughter cow prices have risen considerably since last winter, the $27 per 100 pounds for Utility cows at Omaha in early May was still below a year earlier and has not stimulated heavy culling. In addition, the large supply of dairy replacements and the anticipation of higher support prices may have prevented sharper declines in milk cow numbers in early 1977.

Utility cow prices, Omaha

| Month | 1975 | 1976 | 1977 |
|---|---|---|---|
| | *Dollars per cwt.* | *Dollars per cwt.* | *Dollars per cwt.* |
| January | 16.82 | 23.26 | 22.95 |
| February | 18.18 | 25.90 | 23.88 |
| March | 19.45 | 27.45 | 26.67 |
| April | 21.67 | 30.72 | 27.63 |
| May | 23.55 | 30.24 | |
| June | 23.32 | 27.47 | |
| July | 22.00 | 25.80 | |
| August | 21.29 | 25.10 | |
| September | 22.45 | 22.90 | |
| October | 22.01 | 22.72 | |
| November | 20.73 | 20.59 | |
| December | 21.64 | 21.60 | |
| Average | 21.09 | 25.31 | |

Continuing the pattern of 1976, production in all regions showed increases in early 1977. Output has been particularly strong in the Lake States but the Northeast was just slightly above a year ago in January-April. New York was one of only 6 States (of the 33 States which report monthly) where production in April was below a year earlier. The other 4 major dairy States posted substantial gains, led by a 6-percent increase in Wisconsin.

#### Continued Output Increases Expected

The increase in the support price and the recent surge in protein feed prices are major elements in the outlook for milk production. On balance, substantial gains in milk output are likely throughout the year and probably will average 2-3 percent for the year if weather does not severely reduce feed crops.

Farm milk prices during the rest of 1977 will average well above 1976. However, higher feed costs (due to sharply higher soybean meal prices) may largely offset the impacts of higher farm milk prices this spring and summer. The resulting milk-feed price relationships probably will be favorable enough to sustain a high level of concentrate feeding and relatively normal increases in output per

cow. If feed crops are large again this year, feeding relationships could improve substantially by fall. Even if this summer brings a drought in major grain-producing areas, carryover stocks of feed grains are large and milk-feed price relationships probably will not deteriorate substantially.

Relatively small declines in milk cow numbers are likely. The assured higher milk prices and large number of replacement heifers will tend to dampen the effects of expected higher cull cow prices and improved off-farm opportunities as the economy slowly expands. However, the declines from a year ago in the dairy herd may widen slightly from the very low levels of early 1977.

If milk production peaks normally this year, the increases from a year earlier may briefly accelerate, due to the relatively flat flush production season a year ago. However, even if feed prices decline as the harvest nears, the production increases from the strong second half of 1976 probably will be smaller than during the first half. Under the expected favorable feed price conditions, milk output could about parallel last year's surging production and could total 2-3 percent above 1976 for the year. If feed prices remain high, milk production might slip below 1976 by yearend but probably would stay at fairly high levels.

**Soybean Meal Prices Up Sharply**

Very tight supplies have sharply boosted soybean meal prices since last fall. Although volatile, soybean meal at Decatur ranged from about $240 to about $290 per ton in the first half of May, well above a year ago. As of April 1, farmers intended to plant considerably more acres to soybeans this year, but supplies of soybeans and soybean meal likely will remain tight until harvest approaches.

In contrast to protein prices, corn prices in recent months have fluctuated in a narrow range. The early May prices at Chicago were about $2.45 per bushel, down about 45 cents from a year ago. With another large planted acreage intended and larger carryover stocks expected, supplies of corn will be large by this fall if the weather cooperates.

Farmers paid an average $148 per ton for 16-percent dairy ration in April, up $13 from a year earlier. Hay remained expensive as farmers paid about $81 per ton for alfalfa hay in April, up about $8 from 1976.

Although milk prices moved above a year ago in April, the higher feed prices dropped the milk-feed price ratio to less than 1.5, down slightly from earlier this year and April 1976 (figure 7). The difference in value between 100 pounds of milk and 100

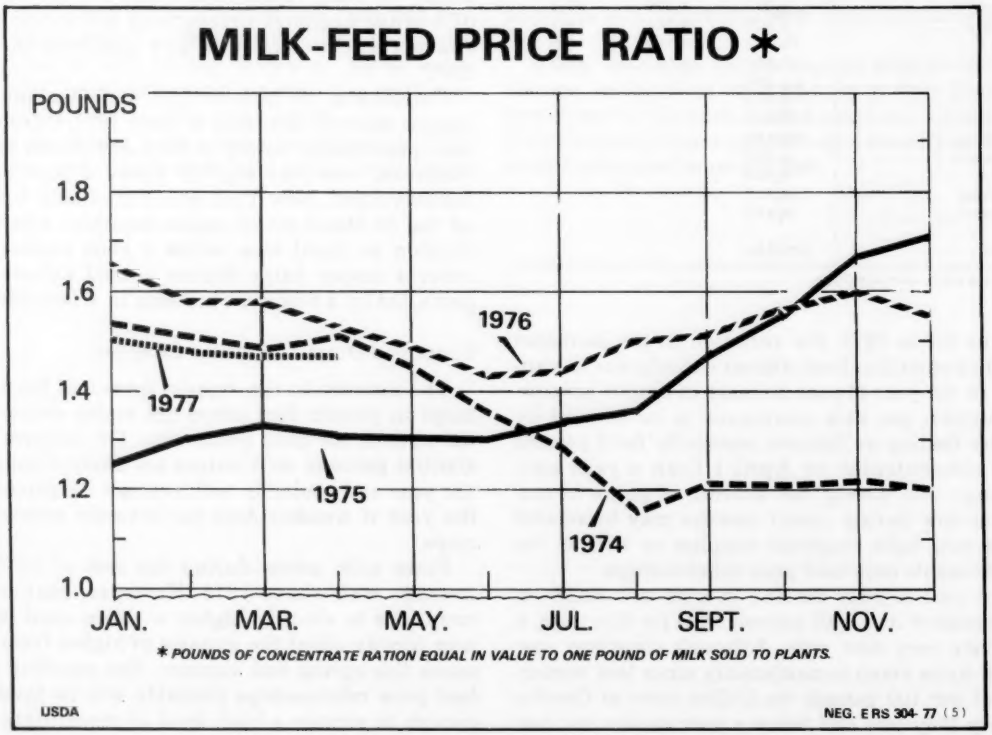


Figure 7

pounds of concentrate ration was $3.01 in April, well below the $3.24 of a year ago.

The value of concentrates fed per 100 pounds of milk produced was $2.63 in 1976, the same as 1975. With sharply higher farm milk prices, average producer returns over concentrate cost were $7.03 per 100 pounds of milk produced, up 90 cents from 1975. Other measures of milk-feed price relationships also showed substantial improvement. The milk-feed price ratio averaged 1.53 in 1976, compared with 1.40 a year earlier, while the difference in value between 100 pounds of milk and 100 pounds of concentrate ration rose from $2.50 in 1975 to $3.36 last year (table 1). The sharply improved milk-feed price relationships were largely responsible for last year's boost in milk output.

### 1976 Marketings Highest Since 1965

Farmers marketed 117.3 billion pounds of milk in 1976, up from 112.1 billion pounds in 1975 (table 2). This was the highest since 1965 and only 3.2 billion pounds below the record high of 1964. Whole milk was sold to plants and dealers in record quantities and accounted for more than 98 percent of the total marketings. Milk sold directly to consumers held about a 1½ percent share. Milk marketed as farm-separated cream has almost become a thing of the past as the equivalent of less than 0.3 billion pounds of milk was marketed in this form last year.

All production regions had increased marketings last year. The very strong gains in the Lake States and Pacific regions were the largest, while the smallest rises from 1975 occurred in the Northern Plains, Delta States, and Mountain regions. The 5 major dairy States of Wisconsin, California, New York, Minnesota, and Pennsylvania accounted for more than 49 percent of total marketings in 1976, a slightly larger proportion than in 1975.

Farm milk use continued its long downward trend. Last year, it represented only about 2½ percent of production, as the amount of milk consumed by farm families slipped and the amount of milk fed to calves was the same. Fewer dairy farm families and increased use of milk replacers have reduced farm use to less than two-thirds the level of a decade ago.

More of the U.S. milk supply last year was eligible for the fluid market (Grade A) than ever before. Almost 81 percent of the milk sold by farmers to plants and dealers was fluid grade, up from 80 percent the year before and 74 percent in 1970 (figure 8). Farmers have been encouraged to shift to Grade A production by the difference between fluid grade and manufacturing grade milk prices, the narrowing of the difference in sanitary standards between the two grades, the narrowing of the production cost difference per 100 pounds of milk as herd size increased, and the decline in the number of market outlets for manufacturing milk. In addition, milk output has declined in many areas which formerly produced sizable quantities of manufacturing grade milk. Significant shifting to Grade A occurred in 1976 in the West North Cen-

**Manufacturing grade milk marketed**

| State | 1966 | 1971 | 1976 |
|---|---|---|---|
| | *Billion pounds* | *Billion pounds* | *Billion pounds* |
| Wisconsin | 9.9 | 8.0 | 6.9 |
| Minnesota | 7.7 | 6.2 | 4.9 |
| Iowa | 3.7 | 2.7 | 1.9 |
| Missouri | 1.5 | 1.1 | 1.1 |
| South Dakota | 1.0 | 1.1 | 1.1 |
| Idaho | 1.0 | 1.1 | .9 |
| Nebraska | .7 | .7 | .6 |
| California | .9 | 1.0 | .6 |
| Kentucky | 1.0 | .7 | .4 |
| Illinois | 1.1 | .6 | .5 |
| United States | 34.0 | 26.9 | 22.2 |

**Table 1—Milk-feed price relationships, 1965-76**

| Year | All milk sold to plants | Ration value | Milk-feed ratio | Milk-feed difference | Returns over concentrate cost |
|---|---|---|---|---|---|
| | *Dol. per cwt.* | *Dol. per cwt.* | *Pounds* | *Dol. per cwt.* | *Dol. per cwt. of milk* |
| 1965 | 4.23 | 3.03 | 1.40 | 1.20 | 3.12 |
| 1966 | 4.81 | 3.15 | 1.53 | 1.66 | 3.63 |
| 1967 | 5.02 | 3.23 | 1.56 | 1.79 | 3.78 |
| 1968 | 5.24 | 3.10 | 1.70 | 2.14 | 4.03 |
| 1969 | 5.49 | 3.15 | 1.75 | 2.34 | 4.21 |
| 1970 | 5.71 | 3.28 | 1.74 | 2.43 | 4.32 |
| 1971 | 5.87 | 3.44 | 1.71 | 2.43 | 4.41 |
| 1972 | 6.07 | 3.52 | 1.73 | 2.55 | 4.60 |
| 1973 | 7.14 | 4.88 | 1.46 | 2.26 | 5.02 |
| 1974 | 8.33 | 6.23 | 1.34 | 2.10 | 5.68 |
| 1975 | 8.75 | 6.25 | 1.40 | 2.50 | 6.12 |
| 1976 | 9.66 | 6.30 | 1.53 | 3.36 | 7.03 |

Table 2--Milk used and marketed by farmers, United States, specified years, 1964-76

| Year | Milk used on farms where produced | | | | Milk marketed by farmers | | | | Total milk production on farms 1/ |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sold to plants and dealers | | | | |
| | Fed to calves 1/ | As fluid milk or cream | For farm-churned butter | Total 2/ | As whole milk | As farm-skimmed cream | Sold directly to consumers 3/ | Total 2/ | |
| | Billion pounds | | | | | | | | |
| 1964 | 2.2 | 3.7 | .6 | 6.5 | 114.2 | 4.4 | 1.9 | 120.5 | 127.0 |
| 1965 | 2.1 | 3.4 | .5 | 6.0 | 112.7 | 3.7 | 1.8 | 118.2 | 124.2 |
| 1966 | 2.0 | 3.1 | .4 | 5.5 | 109.7 | 3.0 | 1.7 | 114.4 | 119.9 |
| 1967 | 1.9 | 2.9 | .3 4/ | 5.2 | 109.4 | 2.4 | 1.8 | 113.6 | 118.7 |
| 1968 | 1.8 | 2.6 | .2 | 4.7 | 108.8 | 2.0 | 1.8 | 112.6 | 117.2 |
| 1969 | 1.7 | 2.4 | .2 | 4.3 | 108.5 | 1.6 | 1.7 | 111.8 | 116.1 |
| 1970 | 1.7 | 2.2 | .1 | 4.0 | 110.0 | 1.2 | 1.7 | 113.0 | 117.0 |
| 1971 | 1.6 | 5/ 2.1 | N.A. | 3.7 | 112.2 | 1.0 | 1.6 | 114.8 | 118.5 |
| 1972 | 1.6 | 5/ 1.9 | N.A. | 3.6 | 114.0 | .8 | 1.5 | 116.3 | 119.9 |
| 1973 | 1.6 | 5/ 1.8 | N.A. | 3.4 | 109.8 | .7 | 1.5 | 112.0 | 115.4 |
| 1974 | 1.6 | 5/ 1.7 | N.A. | 3.3 | 110.3 | .4 | 1.5 | 112.3 | 115.6 |
| 1975 | 1.6 | 5/ 1.6 | N.A. | 3.2 | 110.2 | .3 | 1.6 | 112.1 | 115.3 |
| 1976 6/ | 1.6 | 5/ 1.5 | N.A. | 3.1 | 115.5 | .3 | 1.5 | 117.3 | 120.4 |
| | As a percentage of total milk production | | | | | | | | |
| | Percent | | | | | | | | |
| 1964 | 1.7 | 2.9 | .5 | 5.1 | 89.9 | 3.5 | 1.5 | 94.9 | 100.0 |
| 1965 | 1.7 | 2.7 | .4 | 4.8 | 90.7 | 3.0 | 1.4 | 95.2 | 100.0 |
| 1966 | 1.7 | 2.6 | .3 | 4.6 | 91.5 | 2.5 | 1.4 | 95.4 | 100.0 |
| 1967 | 1.6 | 2.4 | .3 | 4.4 | 92.2 | 2.0 | 1.5 | 95.7 | 100.0 |
| 1968 | 1.5 | 2.2 | .2 | 4.0 | 92.8 | 1.7 | 1.5 | 96.1 | 100.0 |
| 1969 | 1.5 | 2.1 | .2 | 3.7 | 93.5 | 1.4 | 1.5 | 96.3 | 100.0 |
| 1970 | 1.5 | 1.9 | .1 | 3.4 | 94.0 | 1.0 | 1.5 | 96.6 | 100.0 |
| 1971 | 1.4 | 1.8 | N.A. | 3.1 | 94.7 | .8 | 1.4 | 96.9 | 100.0 |
| 1972 | 1.3 | 1.6 | N.A. | 3.0 | 95.1 | .7 | 1.3 | 97.0 | 100.0 |
| 1973 | 1.4 | 1.6 | N.A. | 2.9 | 95.1 | .6 | 1.3 | 97.1 | 100.0 |
| 1974 | 1.4 | 1.5 | N.A. | 2.9 | 95.4 | .3 | 1.3 | 97.1 | 100.0 |
| 1975 | 1.4 | 1.4 | N.A. | 2.8 | 95.6 | .3 | 1.4 | 97.2 | 100.0 |
| 1976 6/ | 1.3 | 1.2 | N.A. | 2.6 | 95.9 | .2 | 1.2 | 97.4 | 100.0 |

1/ Excludes milk sucked by calves.
2/ May not add due to rounding.
3/ By producers who sell only milk from their own herds. Also includes milk produced by institutional herds.
4/ Includes some milk used for other purposes on farms or not utilized.
5/ Includes farm-churned butter.
6/ Preliminary.

tral States and Wisconsin. Last year was the first year in which a majority of milk in all geographic regions was Grade A (table 3).

About 22 billion pounds of manufacturing grade milk were sold in 1976, down almost 5 billion pounds in the last 5 years and 12 billion pounds in the last decade. The 3 largest States—Wisconsin, Minnesota, and Iowa—continued to account for over three-fifths of the U.S. total, while the 10 largest States accounted for 85 percent of the total.

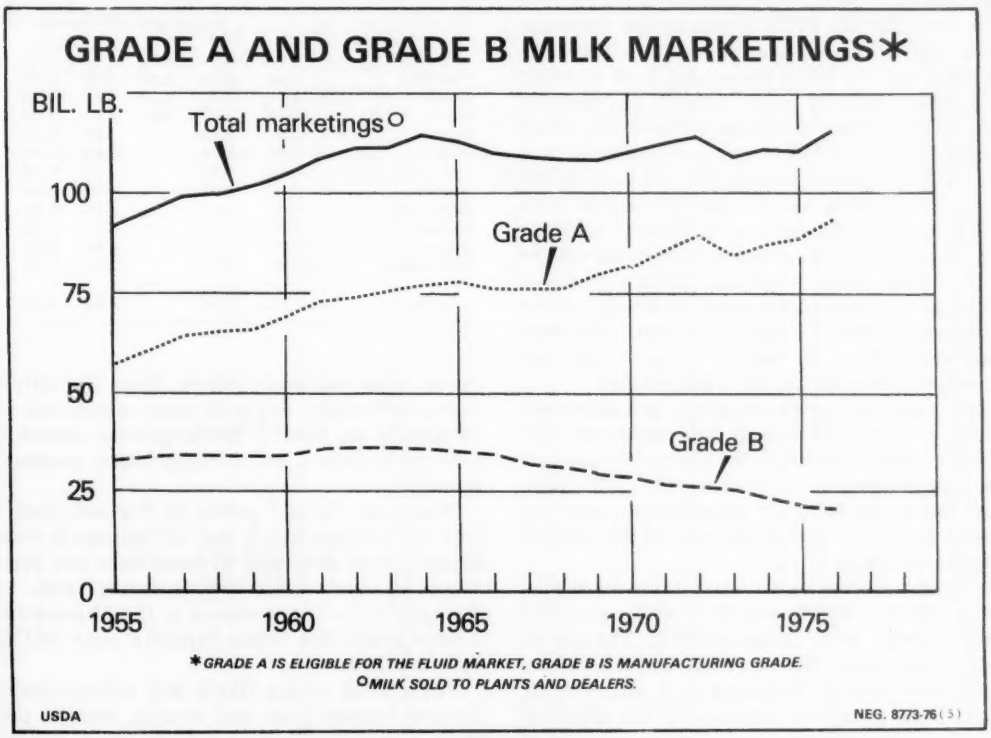


Figure 8

Table 3—Fluid grade milk as percent of all milk sold by farmers to plants and dealers, 1950-76[1]

| Year | Atlantic | | North Central | | South Central | Western | United States |
|---|---|---|---|---|---|---|---|
| | North | South | West | East | | | |
| | *Percent* | *Percent* | *Percent* | *Percent* | *Percent* | *Percent* | *Percent* |
| 1950 | 97 | 83 | 37 | 44 | 62 | 59 | 61 |
| 1955 | 98 | 87 | 34 | 48 | 67 | 64 | 63 |
| 1960 | 99 | 90 | 31 | 55 | 73 | 74 | 67 |
| 1965 | 99 | 93 | 28 | 60 | 78 | 82 | 69 |
| 1966 | 99 | 94 | 28 | 61 | 80 | 84 | 69 |
| 1967 | 99 | 94 | 29 | 60 | 80 | 84 | 70 |
| 1968 | 99 | 94 | 31 | 62 | 81 | 84 | 70 |
| 1969 | 99 | 95 | 35 | 66 | 83 | 85 | 73 |
| 1970 | 99 | 96 | 38 | 68 | 84 | 85 | 74 |
| 1971 | 99 | 96 | 41 | 69 | 86 | 85 | 76 |
| 1972 | 99 | 96 | 43 | 71 | 86 | 85 | 77 |
| 1973 | 99 | 97 | 44 | 71 | 88 | 86 | 77 |
| 1974 | 99 | 98 | 46 | 73 | 89 | 88 | 79 |
| 1975 | 99 | 98 | 49 | 75 | 89 | 88 | 80 |
| 1976 | 99 | 98 | 50 | 75 | 90 | 90 | 81 |

[1] Percentage eligible for fluid use (Grade A in most States). Includes fluid grade milk used in manufactured products.

### Support Price Raised

The support price for manufacturing grade milk was raised to $9.00 per 100 pounds on April 1, which was 82.3 percent of parity (table 4 ). The support level for the 1977/78 marketing year was 87 cents higher than at the start of the past marketing year and 74 cents above the level in effect since October 1976. In order to carry out the new support level, support purchase prices were raised as shown in table 5. The Commodity Credit Corporation (CCC) is also offering to purchase barrel cheese in fiber barrels for an indefinite period at 95 cents per pound. A decision on whether to continue buying barrel cheese on a permanent basis will be made at a later date, based on CCC's experience with storage and processing and on whether there is a continuing need for such purchases. The support price for milk, as well as support purchase prices, will be reviewed again in six months.

In addition, the price support announcement eliminated the price advantage for cheese over butter-powder which had existed under the support program since April 1, 1976. Also, the CCC sales price of dairy products for unrestricted use was increased from 105 to 110 percent of the current CCC purchase prices.

The April 1 parity equivalent price for manufacturing milk was $10.93 per 100 pounds, up about 7½ percent from a year earlier (table 6). The rise in the parity equivalent from a year ago reflects an increased ratio of manufacturing milk prices to all wholesale milk prices, an increase in the adjusted base price, and an increase in the parity index (index of prices paid by farmers). The parity equivalent price at the beginning of the marketing year is used to determine the legal minimum (75 percent of parity) and maximum (90 percent) support levels for the marketing year.

### Farm Milk Prices To Stay Near Support

Farm milk prices increased slightly in April as adjustment to the new support price began. In April, farmers received $9.48 per 100 pounds, up a nickel from March and 11 cents from last April.

After bottoming out in February, manufacturing grade milk prices have strengthened slightly and averaged $8.61 per 100 pounds in April. This was up 20 cents from February, but only 11 cents above a year ago when market prices were well above the support level at that time. Adjusted to the annual average fat test, of 3.67 percent, manufacturing milk prices in April were 35 cents below the $9.00 support level.

In March, American cheese plants paid about 13 cents more than butter-powder plants for milk of equivalent fat test. The support purchase price for cheese was relatively higher than the prices for butter and nonfat dry milk prior to removal of this advantage on April 1. Butter-powder plants likely will move into a more competitive position this summer.

**Milk prices received by farmers**

| Month | All sold to plants | | | Manufacturing grade | | |
|---|---|---|---|---|---|---|
| | 1975 | 1976 | 1977 | 1975 | 1976 | 1977 |
| | *Dollars per 100 pounds* | | | | | |
| January | 8.43 | 10.20 | 9.65 | 6.97 | 9.07 | 8.48 |
| February | 8.38 | 9.79 | 9.54 | 7.02 | 8.45 | 8.41 |
| March | 8.22 | 9.72 | 9.43 | 7.03 | 8.53 | 8.46 |
| April | 8.18 | 9.37 | 9.48 | 7.06 | 8.50 | 8.61 |
| May | 8.07 | 9.23 | | 7.07 | 8.31 | |
| June | 7.99 | 9.11 | | 7.09 | 8.32 | |
| July | 8.25 | 9.41 | | 7.27 | 8.60 | |
| August | 8.64 | 9.75 | | 7.63 | 8.88 | |
| September | 9.25 | 9.87 | | 8.25 | 8.64 | |
| October | 9.70 | 10.00 | | 8.77 | 8.53 | |
| November | 10.00 | 9.94 | | 9.01 | 8.57 | |
| December | 10.30 | 9.75 | | 9.30 | 8.55 | |
| Average | 8.75 | 9.66 | | 7.63 | 8.58 | |

Minimum Class I prices in Federal order markets will average $10.70 per 100 pounds in June, up 29 cents from May and 16 cents from last June but down 38 cents from the October peak. These changes reflect movement in the Minnesota-Wisconsin price, the basic formula price in Federal order markets.

Farm milk prices likely will adjust upward to the new support price and average about 5 percent above a year earlier during flush. Farm milk prices probably will show only a small seasonal rise during the second half of 1977. Such increases likely would be moderate even if milk output weakens. In any event, the largest rises from a year earlier in farm milk prices likely will occur during the second and fourth quarter of the year; last year, prices peaked sharply in late summer.

### Cash Receipts Down; To Recover

Cash receipts from dairying during the first quarter were about 1½ percent below a year earlier, as lower milk prices more than offset larger marketings. Cash receipts from dairying likely will exceed year-earlier levels in coming months as a result of both higher price levels and larger marketings.

In 1976, higher prices and larger marketings brought cash receipts from farm marketings of milk and cream to more than $11.4 billion, up about 15 percent from 1975. Sales of milk to plants and dealers contributed almost 98 percent and direct sales to consumers represented almost all of the remainder. Cash receipts from farm-separated

Table 4 --Manufacturing milk: Comparisons of announced support prices and U.S. average market prices paid to producers, marketing years, 1949-77

| Marketing year beginning April 1 | Date effective 1/ | Manufacturing milk | | | | |
|---|---|---|---|---|---|---|
| | | Support level | | Average market level | | |
| | | Percentage of parity equivalent 2/ | Price per 100 pounds | Price per 100 pounds | As a percentage of parity equivalent: In month prior to marketing year | As a percentage of parity equivalent: Average during marketing year |
| | | Percent | Dollars | Dollars | Percent | Percent |
| 1949 3/ | | 90 | 3.14 | 3.14 | 90 | 89 |
| 1950 4/ | | 81 | 3.07 | 3.35 | 88 | 85 |
| 1951 | | 86 | 3.60 | 3.97 | 94 | 93 |
| 1952 | | 90 | 3.85 | 4.00 | 93 | 95 |
| 1953 | | 89 | 3.74 | 3.46 | 83 | 84 |
| 1954 | | 75 | 3.15 | 3.15 | 75 | 80 |
| 1955 | | 80 | 3.15 | 3.19 | 81 | 82 |
| 1956 | | 82 | 3.15 | | | |
| | 4/18/56 | 84 | 3.25 | 3.31 | 86 | 84 |
| 1957 | | 82 | 3.25 | 3.28 | 83 | 82 |
| 1958 | | 75 | 3.06 | 3.16 | 77 | 77 |
| 1959 | | 77 | 3.06 | 3.22 | 81 | 81 |
| 1960 | | 76 | 3.06 | | | |
| | 9/17/60 | 80 | 3.22 | | | |
| | 3/10/61 | 85 | 3.40 | 3.31 | 83 | 83 |
| 1961 | | 83 | 3.40 | 3.38 | 83 | 82 |
| 1962 5/ | | 75 | 3.11 | 3.19 | 76 | 76 |
| 1963 | | 75 | 3.14 | 3.24 | 77 | 77 |
| 1964 | | 75 | 3.15 | 3.30 | 77 | 78 |
| 1965 | | 75 | 3.24 | 3.45 | 80 | 79 |
| 1966 | | 78 | 3.50 | | | |
| | 6/30/66 | 89.5 | 4.00 | 4.11 | 92 | 90 |
| 1967 | | 87 | 4.00 | 4.07 | 88 | 87 |
| 1968 | | 89.4 | 4.28 | 4.30 | 90 | 87 |
| 1969 | | 83 | 4.28 | 4.55 | 88 | 86 |
| 1970 | | 85 | 4.66 | 4.76 | 87 | 85 |
| 1971 | | 85 | 4.93 | 4.91 | 85 | 82 |
| 1972 | | 79 | 4.93 | 5.22 | 84 | 80 |
| 1973 | 3/15/73 | 75 | 5.29 | | | |
| | 8/10/73 | 80 | 5.61 | 6.95 | 99 | 91 |
| 1974 | | 81 | 6.57 | | | |
| | 1/ 4/75 | 89 | 7.24 | 6.87 | 85 | 78 |
| 1975 | | 79 | 7.24 | | | |
| | 10/ 2/75 | 84 | 7.71 | 8.12 | 89 | 84 |
| 1976 | | 80 | 8.13 | | | |
| | 10/ 1/76 | 81 | 8.26 | 8.52 | 84 | 82 |
| 1977 | | 82 | 9.00 | | | |

1/ If other than April 1. 2/ Except as noted, this is the actual percentage of the parity equivalent price published in March before the marketing year. In some cases the announced percentages, based on forward estimates of parity, were slightly different. 3/ Calendar year. 4/ January 1, 1950-March 31, 1951. 5/ Beginning November 1962, parity equivalent is based on prices for all manufacturing grade milk instead of the "3-product" price for American cheese, evaporated milk, and the butter-nonfat dry milk combination used before.

Table 5--Dairy products under price support programs, USDA purchase price per pound, 1962-77 1/

| Effective date of change | Butter, Grade A or higher, Chicago | Butter, Grade A or higher, New York | Nonfat dry milk, extra grade, Spray | Natural Cheddar cheese, Grade A or higher |
|---|---|---|---|---|
| | Cents | | | |
| 4/01/62 | 57.966 | 58.75 | 14.40 | 34.60 |
| 4/01/63 | 57.966 | 58.75 | 14.40 | 35.60 |
| 4/01/65 | 58.966 | 59.75 | 14.60 | 36.10 |
| 4/01/66 | 60.966 | 61.75 | 16.60 | 39.30 |
| 6/30/66 | 66.466 | 67.25 | 19.60 | 43.75 |
| 4/01/68 | 2/ 66.442 | 67.25 | 23.10 | 47.00 |
| 4/01/69 | 2/ 67.644 | 68.50 | 23.35 | 48.00 |
| 4/01/70 | 2/ 69.846 | 70.75 | 27.20 | 52.00 |
| 4/01/71 | 67.784 | 68.75 | 31.70 | 54.75 |
| 4/01/72 | 67.708 | 68.75 | 31.70 | 54.75 |
| 4/15/73 | 60.922 | 62.00 | 37.50 | 62.00 |
| 8/10/73 | 60.922 | 62.00 | 41.40 | 65.00 |
| 4/01/74 | 60.570 | 62.00 | 56.60 | 70.75 |
| 1/04/75 | 68.070 | 69.50 | 60.60 | 77.25 |
| 4/01/75 | 69.193 | 70.75 | 60.60 | 79.25 |
| 10/2/75 | 79.693 | 81.25 | 62.40 | 85.00 |
| 4/01/76 | 85.817 | 87.75 | 62.40 | 90.50 |
| 10/1/76 | 90.817 | 92.75 | 62.40 | 92.50 |
| 4/01/77 | 100.710 | 102.75 | 68.00 | 3/ 98.00 |

1/ Prices for bulk containers--butter, 64 and 68-pound packages; nonfat dry milk, nonfortified in 100-pound bags (50-pound bags since April 1969); and cheese, mostly in 40 and 60-pound blocks. See DS-325, May 1969, table 6 for 1949-61 data. 2/ Prices varied slightly during the year due to changes in freight rates. 3/ 95 cents for barrel cheese.

Table 6--Computations of parity equivalents for manufacturing milk, per 100 pounds, marketing years, 1962-77 1/

| Marketing year beginning April 1 | Base period 2/: All milk wholesale | Base period 2/: Manufacturing grade milk 4/ | Base period 2/: Ratio | Adjusted base price 5/ | Parity 3/: Index (1910-14=100) | Parity 3/: Prices: All milk wholesale | Parity 3/: Prices: Equivalent of manufacturing milk |
|---|---|---|---|---|---|---|---|
| | Dollars | Dollars | Percent | Dollars | | Dollars | Dollars |
| 1962 | 4.25 | 3.36 | 79.1 | 1.72 | 305 | 5.25 | 4.15 |
| 1963 | 4.17 | 3.27 | 78.4 | 1.72 | 310 | 5.35 | 4.19 |
| 1964 | 4.15 | 3.24 | 78.1 | 1.72 | 313 | 5.38 | 4.20 |
| 1965 | 4.17 | 3.25 | 77.9 | 1.74 | 318 | 3.53 | 4.31 |
| 1966 | 4.19 | 3.27 | 78.0 | 1.73 | 331 | 5.73 | 4.47 |
| 1967 | 4.25 | 3.34 | 78.6 | 1.73 | 340 | 5.88 | 4.62 |
| 1968 | 4.33 | 3.42 | 79.0 | 1.73 | 350 | 6.06 | 4.79 |
| 1969 | 4.44 | 3.52 | 79.3 | 1.76 | 369 | 6.49 | 5.15 |
| 1970 | 4.57 | 3.65 | 79.9 | 1.78 | 386 | 6.87 | 5.49 |
| 1971 | 4.73 | 3.79 | 80.3 | 1.79 | 405 | 7.21 | 5.79 |
| 1972 | 4.89 | 3.94 | 80.6 | 1.82 | 423 | 7.70 | 6.21 |
| 1973 | 5.09 | 4.13 | 81.1 | 1.83 | 473 | 8.64 | 7.01 |
| 1974 | 5.39 | 4.43 | 82.2 | 1.80 | 549 | 9.88 | 8.12 |
| 1975 | 5.81 | 4.83 | 83.1 | 1.80 | 612 | 11.00 | 9.14 |
| 1976 | 6.26 | 5.26 | 84.0 | 1.82 | 664 | 12.10 | 10.16 |
| 1977 | 6.75 | 5.72 | 84.7 | 1.88 | 685 | 12.90 | 10.93 |

1/ See DS-325, May 1969, table 7 for 1948-61. 2/ For the 10 calendar years immediately preceding. 3/ From March issues of Agricultural Prices. 4/ Prior to November 1962, the "3-product" price series was used. 5/ 120-month average of farm prices for all wholesale milk divided by 120-month average of the Index of Prices Received by Farmers (both adjusted for supplemental payments), ending with December of previous year. Actual price received during 1910-14 was $1.61.

cream were negligible. Dairy income was up in all production regions last year with the largest gains occurring in the Lake States (19 percent). Gains of 15 and 11 percent were recorded in the important Northeast and Pacific regions, respectively (table 7).

During the first quarter, the index of production costs was up about 4 percent. Production costs likely will continue to rise in coming months but the increase from a year earlier by late 1977 probably will be less than the gains in gross dairy income, implying improved net incomes for producers.

#### Wholesale Prices At Support

Wholesale dairy product markets have adjusted to the new support prices, which became effective on April 1. With very heavy expected supplies of milk available for manufacturing, wholesale prices probably will remain at support level through summer.

Wholesale prices of 40-pound blocks of American cheese are very close to CCC's support purchase price of 98 cents per pound (figure 9). Barrel cheese prices are slightly under the newly established support purchase price of 95 cents per pound. However, because of the added cost of meeting CCC packaging and product specifications, the average price of barrel cheese may remain somewhat below the announced purchase price. By early May, the differential between blocks and barrels had narrowed to a more typical level of about 4 cents per pound, after being as wide as 9 cents in January.

In early May, butter prices had adjusted to the new support level, while nonfat dry milk prices, at about 66½ to just over 68 cents per pound, averaged slightly under the new support level as holdings of powder produced before April 1 were worked off.

Among other dry products, edible dry whey prices were just over 8 cents per pound (Central States production area) as dry product prices continued to go through an adjustment period following the price support increase. The casein supply situation continues tight worldwide and likely will remain this way at least through the summer.

Manufacturers' average selling price for evaporated milk was $13.62 per case in March, down 16 cents from a year ago but 28 cents above February. Wholesale ice cream prices rose in April and were about 2 percent higher than the first quarter and about 7 percent higher than a year ago.

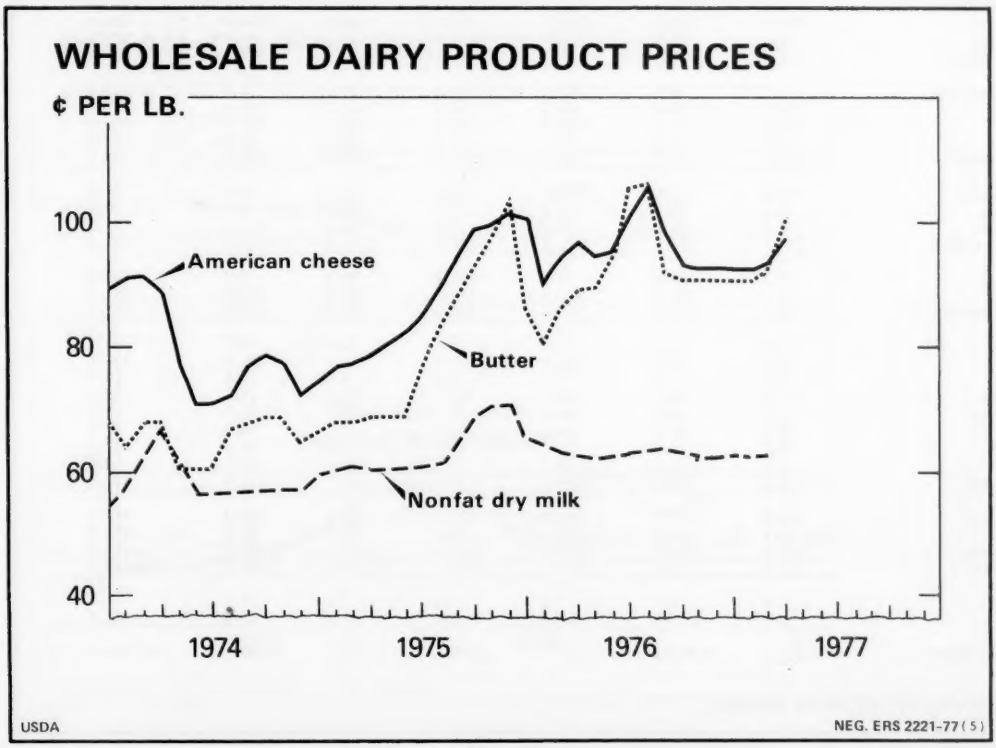


Figure 9

Table 7--Cash receipts from farm marketings of milk and cream, United States by production regions, 1970-76 1/

| State and region | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 2/ |
|---|---|---|---|---|---|---|---|
| | | | | Million dollars | | | |
| Maine | 42.2 | 44.3 | 46.7 | 50.8 | 58.6 | 61.1 | 67.4 |
| New Hampshire | 23.5 | 24.3 | 24.9 | 27.3 | 29.8 | 32.0 | 35.6 |
| Vermont | 126.5 | 133.0 | 138.9 | 151.8 | 169.4 | 185.1 | 217.0 |
| Massachusetts | 47.8 | 48.2 | 47.4 | 50.6 | 56.6 | 59.9 | 65.9 |
| Rhode Island | 5.2 | 4.9 | 4.9 | 5.2 | 5.8 | 5.9 | 6.4 |
| Connecticut | 46.7 | 47.7 | 48.0 | 52.0 | 58.9 | 60.7 | 66.7 |
| New York | 612.7 | 631.9 | 647.2 | 704.0 | 808.1 | 859.6 | 992.3 |
| New Jersey | 46.9 | 45.1 | 44.0 | 45.7 | 49.4 | 48.8 | 56.6 |
| Pennsylvania | 456.0 | 462.0 | 473.0 | 525.7 | 623.8 | 661.3 | 777.5 |
| Delaware | 8.5 | 8.9 | 9.1 | 9.9 | 11.4 | 11.8 | 13.3 |
| Maryland | 100.7 | 103.5 | 104.9 | 113.9 | 133.6 | 140.7 | 156.5 |
| NORTHEAST | 1,516.7 | 1,553.8 | 1,589.0 | 1,736.9 | 2,005.4 | 2,126.9 | 2,455.2 |
| Michigan | 261.0 | 278.9 | 299.5 | 325.4 | 352.5 | 376.3 | 447.1 |
| Wisconsin | 915.8 | 970.1 | 1,035.1 | 1,201.3 | 1,396.2 | 1,500.5 | 1,810.4 |
| Minnesota | 442.8 | 461.5 | 479.2 | 570.7 | 664.0 | 675.3 | 785.4 |
| LAKE STATES | 1,619.6 | 1,710.5 | 1,813.8 | 2,097.4 | 2,412.7 | 2,552.1 | 3,042.9 |
| Ohio | 256.1 | 267.6 | 282.5 | 309.0 | 355.8 | 372.0 | 436.3 |
| Indiana | 133.3 | 139.8 | 146.7 | 163.1 | 187.8 | 188.6 | 221.0 |
| Illinois | 153.0 | 153.3 | 162.1 | 182.0 | 203.0 | 209.1 | 230.3 |
| Iowa | 220.7 | 224.3 | 224.9 | 262.2 | 288.6 | 304.2 | 361.7 |
| Missouri | 155.3 | 159.5 | 165.1 | 195.6 | 227.7 | 227.2 | 272.3 |
| CORN BELT | 918.4 | 944.5 | 981.3 | 1,111.9 | 1,262.9 | 1,301.1 | 1,521.6 |
| North Dakota | 41.3 | 41.3 | 43.2 | 57.3 | 62.3 | 62.9 | 71.6 |
| South Dakota | 68.7 | 73.3 | 76.1 | 92.8 | 104.5 | 105.4 | 127.5 |
| Nebraska | 73.2 | 76.2 | 82.3 | 95.6 | 106.7 | 109.3 | 122.9 |
| Kansas | 94.5 | 95.2 | 95.5 | 102.3 | 111.0 | 119.3 | 133.5 |
| NORTHERN PLAINS | 277.7 | 286.0 | 297.1 | 348.0 | 384.5 | 396.9 | 455.5 |
| Virginia | 104.7 | 109.1 | 112.9 | 125.7 | 151.9 | 162.3 | 182.2 |
| West Virginia | 20.3 | 21.5 | 21.2 | 23.7 | 28.3 | 29.8 | 31.6 |
| North Carolina | 94.5 | 98.7 | 102.3 | 118.9 | 140.5 | 150.6 | 163.5 |
| Kentucky | 125.8 | 130.7 | 138.7 | 149.2 | 180.3 | 180.9 | 206.7 |
| Tennessee | 113.3 | 115.5 | 123.0 | 133.3 | 156.1 | 154.8 | 179.3 |
| APPALACHIAN | 458.6 | 475.5 | 498.1 | 550.8 | 657.1 | 678.4 | 763.3 |
| South Carolina | 35.4 | 36.8 | 37.1 | 42.1 | 52.0 | 52.8 | 57.5 |
| Georgia | 80.2 | 80.7 | 86.8 | 96.0 | 116.5 | 115.4 | 135.2 |
| Florida | 126.9 | 141.2 | 149.5 | 172.1 | 211.4 | 222.8 | 244.3 |
| Alabama | 52.5 | 56.0 | 57.3 | 64.3 | 69.1 | 69.6 | 72.2 |
| SOUTHEAST | 295.0 | 314.7 | 330.7 | 374.5 | 449.0 | 460.6 | 509.2 |
| Mississippi | 60.6 | 61.0 | 63.9 | 70.9 | 79.9 | 80.6 | 86.2 |
| Arkansas | 38.3 | 40.7 | 43.6 | 49.2 | 58.3 | 58.7 | 70.8 |
| Louisiana | 73.5 | 76.8 | 79.0 | 85.9 | 102.8 | 106.4 | 117.3 |
| DELTA STATES | 172.4 | 178.5 | 186.5 | 206.0 | 241.0 | 245.7 | 274.3 |
| Oklahoma | 72.9 | 74.9 | 73.7 | 84.8 | 99.8 | 92.7 | 106.0 |
| Texas | 205.5 | 221.1 | 233.3 | 263.4 | 306.2 | 299.5 | 347.4 |
| SOUTHERN PLAINS | 278.4 | 296.0 | 307.0 | 348.2 | 406.0 | 392.2 | 453.4 |
| Montana | 15.9 | 16.6 | 17.8 | 19.1 | 22.3 | 22.2 | 24.3 |
| Idaho | 69.6 | 76.1 | 82.9 | 100.1 | 112.5 | 123.2 | 136.5 |
| Wyoming | 7.2 | 7.2 | 7.8 | 8.6 | 9.6 | 8.9 | 10.5 |
| Colorado | 53.6 | 56.5 | 59.2 | 65.5 | 75.6 | 75.4 | 85.1 |
| New Mexico | 22.0 | 24.2 | 26.0 | 27.7 | 33.5 | 37.1 | 44.3 |
| Arizona | 40.0 | 43.4 | 44.9 | 60.6 | 73.7 | 78.0 | 89.9 |
| Utah | 45.6 | 47.6 | 51.4 | 60.3 | 75.0 | 78.3 | 87.8 |
| Nevada | 8.2 | 8.3 | 8.5 | 9.8 | 14.0 | 14.5 | 16.6 |
| MOUNTAIN | 262.1 | 279.9 | 298.5 | 351.7 | 416.2 | 437.6 | 495.0 |
| Washington | 121.0 | 134.5 | 144.8 | 170.5 | 194.3 | 208.3 | 240.2 |
| Oregon | 56.2 | 61.0 | 63.0 | 72.6 | 84.8 | 88.6 | 101.5 |
| California | 534.0 | 560.9 | 608.1 | 693.0 | 894.3 | 997.2 | 1,088.7 |
| PACIFIC | 711.2 | 756.4 | 815.9 | 936.1 | 1,173.4 | 1,294.1 | 1,430.4 |
| Alaska | 2.0 | 1.8 | 2.0 | 2.1 | 2.4 | 2.7 | 2.7 |
| Hawaii | 13.0 | 13.2 | 14.5 | 16.5 | 19.4 | 20.5 | 21.9 |
| UNITED STATES | 6,525.2 | 6,810.8 | 7,134.7 | 8,080.1 | 9,430.1 | 9,909.3 | 11,425.4 |

1/ Totals may not add due to rounding.
2/ Preliminary.

The wholesale dairy price index, as reported by the Bureau of Labor Statistics (BLS), stood at 173.6 in April, down just barely from last August's peak, but up about 3½ percent from a year earlier. The index likely will reflect minor adjustments during the next few months but will be generally stable.

### Retail Price To Rise Moderately

Retail dairy prices likely will increase moderately in coming months as higher support prices and wholesale prices are more fully reflected in the supermarket. For the year in total, retail dairy prices could average 4-5 percent above 1976.

Retail dairy prices held very stable during the first quarter of the year as supplies remained heavy. The BLS index of retail dairy prices stood at 171.2 in March, up less than 2 percent from a year earlier. Meanwhile, retail prices of all food items in grocery stores were 5 percent above a year ago and all items in the Consumer Price Index averaged over 6 percent higher.

Retail butter prices in March were about 10 cents per pound higher than a year earlier, but were almost 8 cents below last September's record level (figure 10). The retail price of processed American cheese averaged just over 84 cents per half pound, about 3½ cents lower than January and a penny less than last March. Ice cream prices increased slightly in March and were about 4 percent higher than a year ago.

Fluid milk prices averaged 83.5 cents per half gallon in March, down slightly from February and up less than a penny from the year-earlier level. Although retail prices of fluid milk have generally declined since October, they likely will increase this summer as Class I prices reflect the higher support level.

**Retail dairy product prices**

| Item | Unit | Mar. 1976 | June 1976 | Dec. 1976 | Mar. 1977 |
|---|---|---|---|---|---|
| All dairy products | 1967=100 | 167.9 | 167.9 | 171.4 | 171.2 |
| Butter | c/lb. | 117.8 | 121.1 | 127.3 | 127.4 |
| Processed American cheese | c/½-lb | 85.6 | 85.8 | 87.7 | 84.3 |
| Ice cream | c/½-gal. | 125.6 | 126.7 | 131.1 | 131.2 |
| Whole milk: At stores | c/½-gal. | 82.8 | 82.2 | 83.3 | 83.5 |
| Evaporated milk | c/can | 34.0 | 34.2 | 35.1 | 35.2 |
| Skim milk: At stores | c/qt. | 44.9 | 44.5 | 45.5 | 45.6 |

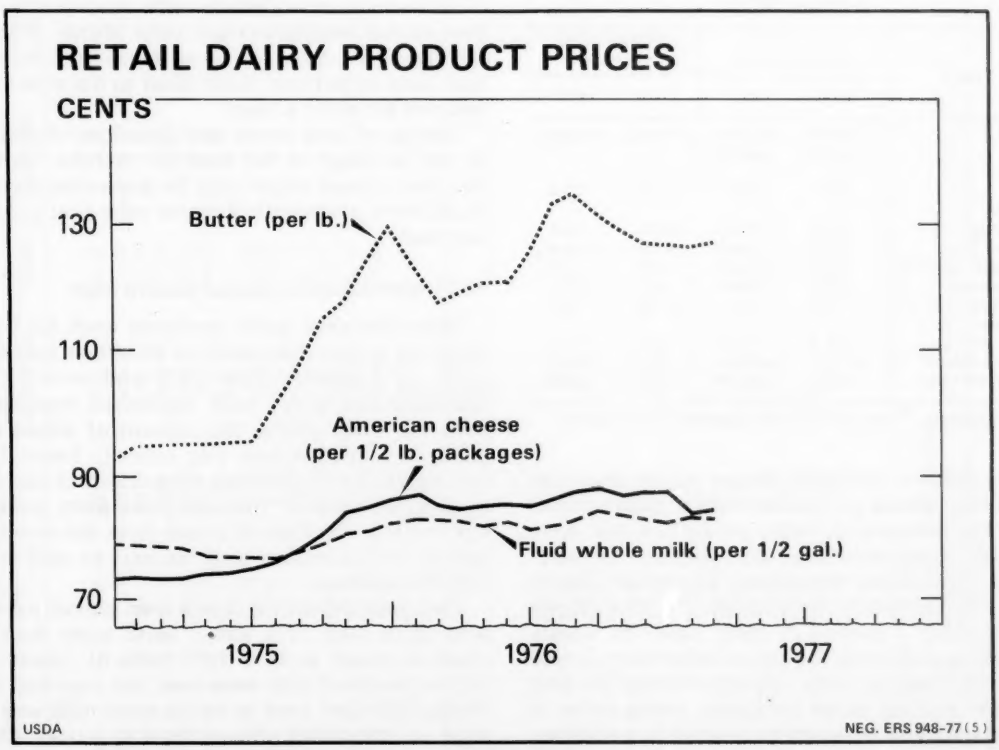


Figure 10

### Supply Of Milk For Manufacturing Heavy

The heavy milk output and slightly lower fluid milk sales during January-March resulted in almost 6 percent more milk used in manufacturing than a year earlier. Supplies of milk available for manufacturing will be very heavy during the flush season, as milk production remains above a year earlier and fluid sales are expected to be about the same. These large supplies may strain manufacturing capacity in some areas and some milk might have to be shipped considerable distances to be manufactured.

Both butter and American cheese output have shared the increased milk supplies. During the first quarter, butter production was up 12 percent from 1976's somewhat weak levels. Preliminary estimates of April output show an increase of more than a tenth from a year ago, slightly more than the March rise. The year-to-year increase in nonfat dry milk during January-March was limited to only 7 percent however, partially due to reduced fuel supplies which forced skim milk into condensed skim milk production.

**Production of selected manufactured dairy products, 1976-77**

| Item | January-March | | Change from year earlier | |
|---|---|---|---|---|
| | 1976 | 1977[1] | 1976 | 1977[1] |
| | *Million pounds* | *Million pounds* | *Percent* | *Percent* |
| Butter | 269.0 | 300.2 | -6.4 | +11.6 |
| Cheese: | | | | |
| American | 464.8 | 509.0 | +17.8 | +9.5 |
| Other | 300.4 | 309.0 | +13.6 | +2.9 |
| Cottage, creamed | 222.8 | 221.0 | +4.2 | -.8 |
| Canned milk | 236.1 | 194.6 | +6.4 | -17.6 |
| Dry whole milk | 20.6 | 20.1 | +82.3 | -2.4 |
| Ice cream (Mil. gal.) | 185.9 | 179.1 | +2.7 | -3.7 |
| Milk equivalent[2] | 15,307 | 16,197 | +4.4 | +5.8 |
| Nonfat dry milk | 216.4 | 231.2 | -18.2 | +6.8 |

[1] Preliminary. [2] Total all reported manufactured products.

The rises in American cheese output from last year's very strong production were slightly smaller than the increases in butter production and have generally diminished thus far this year. January-March production was about 10 percent higher than 1976 and easily record-high. The rise slipped to only about 5 percent in April, based on weekly production estimates. Output of other-than-American types was up only slightly during the first quarter. Among other products, weak sales of canned milk and large stocks resulted in a substantial reduction in canned milk output. On the other hand, production of dry whey products was up slightly and condensed whey output was substantially higher. Larger supplies of liquid whey were available but increases in whey product output were limited by tight fuel supplies.

**Wisconsin out-of-state milk shipments**

| Month | 1976 | | 1977 | |
|---|---|---|---|---|
| | Loads | Volume | Loads | Volume |
| | *Number* | *Thousand pounds* | *Number* | *Thousand pounds* |
| January | 475 | 22,325 | 206 | 9,682 |
| February | 176 | 8,272 | 163 | 7,661 |
| March | 67 | 3,149 | 59 | 2,773 |
| April | 20 | 940 | 6 | 282 |
| May | 39 | 1,833 | | |
| June | 30 | 1,410 | | |
| July | 27 | 1,269 | | |
| August | 42 | 1,974 | | |
| September | 293 | 13,771 | | |
| October | 192 | 9,024 | | |
| November | 283 | 13,301 | | |
| December | 214 | 10,058 | | |
| Total | 1,858 | 87,326 | | |

Wisconsin out-of-State milk shipments have been almost negligible since early March. With the widespread expansion in milk production, there has been relatively little need to draw on these reserves for about a year.

Output of both butter and American cheese will be will be large in the next few months. Later in the year, cheese output may be somewhat stronger than butter production if cheese sales post gains as expected..

### 1976 Manufactured Output Record High

Manufactured dairy products used the equivalent (on a fat solids basis) of 65 billion pounds of milk, up 8 percent from 1975 and record-high. Although last year's milk equivalent was higher than the early 1960's, the amount of whole milk going to manufacturers was actually lower. Over the years, an increasing proportion of the milk equivalent used in manufactured dairy products has come in the form of cream from the standardization of fluid milk, which can only be used in the high-fat products.

Last year, American cheese used almost a fourth more milk than 1975 and a tenth more than the previous record level of 1974 (table 8). About 20½ billion pounds of milk were used last year and 1976 marked the first year in which more milk was utilized in American cheese than in butter. Other cheese types also used considerably more milk

Table 8--Use of market supply of milk, United States, 1964-76

| Year | Fluid use | Butter, net | Cheese | | Creamed cottage cheese | Evaporated and condensed milk 1/ | Dry whole milk | Frozen dairy products, net | Other factory products | Total factory products 2/ | Miscellaneous 3/ | Market supply of milk 4/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | American | Other | | | | | | | | |
| | Billion pounds (milk equivalent) | | | | | | | | | | | |
| 1964 | 54.9 | 31.2 | 11.5 | 4.2 | 1.0 | 5.0 | 0.6 | 10.3 | 0.6 | 64.5 | 1.1 | 120.5 |
| 1965 | 55.4 | 28.5 | 11.5 | 4.3 | 1.0 | 4.6 | .7 | 10.6 | .6 | 61.8 | 1.2 | 118.4 |
| 1966 | 55.4 | 23.7 | 12.2 | 4.5 | 1.0 | 4.7 | .7 | 10.5 | .6 | 57.9 | 2.5 | 115.9 |
| 1967 | 54.0 | 26.1 | 12.7 | 4.5 | 1.0 | 4.0 | .5 | 10.5 | .3 | 59.8 | 1.2 | 114.9 |
| 1968 | 53.7 | 24.9 | 12.7 | 4.7 | 1.1 | 3.9 | .6 | 11.0 | .4 | 59.2 | -.2 | 112.8 |
| 1969 | 52.8 | 23.7 | 12.7 | 4.9 | 1.2 | 3.9 | .5 | 11.0 | .4 | 58.3 | 1.0 | 112.1 |
| 1970 | 52.0 | 23.9 | 14.3 | 5.3 | 1.2 | 3.3 | .5 | 11.1 | .4 | 60.0 | 1.5 | 113.5 |
| 1971 | 51.8 | 23.9 | 15.1 | 5.8 | 1.3 | 3.2 | .5 | 11.0 | .6 | 61.5 | 1.7 | 115.0 |
| 1972 | 53.2 | 22.8 | 16.3 | 6.4 | 1.3 | 3.1 | .6 | 11.0 | .8 | 62.2 | 1.1 | 116.5 |
| 1973 | 52.4 | 18.6 | 16.8 | 6.8 | 1.1 | 2.9 | .6 | 11.1 | .7 | 58.7 | 1.8 | 112.8 |
| 1974 | 50.5 | 19.3 | 18.6 | 7.1 | 1.0 | 2.8 | .5 | 11.2 | .8 | 61.3 | .6 | 112.4 |
| 1975 | 50.8 | 19.8 | 16.5 | 7.4 | 1.0 | 2.7 | .5 | 11.8 | .6 | 60.3 | 1.2 | 112.3 |
| 1976 5/ | 51.2 | 20.0 | 20.5 | 8.3 | 1.1 | 2.7 | .6 | 11.5 | .7 | 65.2 | 1.1 | 117.5 |
| | Percentage of total market supply | | | | | | | | | | | |
| | Percent | | | | | | | | | | | |
| 1964 | 45.6 | 25.9 | 9.5 | 3.5 | .8 | 4.2 | .5 | 8.5 | .5 | 53.5 | .9 | 100.0 |
| 1965 | 46.8 | 24.1 | 9.7 | 3.6 | .8 | 3.9 | .6 | 9.0 | .5 | 52.2 | 1.0 | 100.0 |
| 1966 | 47.8 | 20.4 | 10.5 | 3.9 | .9 | 4.1 | .6 | 9.1 | .5 | 50.0 | 2.2 | 100.0 |
| 1967 | 47.0 | 22.7 | 11.1 | 3.9 | .9 | 3.5 | .4 | 9.1 | .3 | 52.0 | 1.0 | 100.0 |
| 1968 | 47.6 | 22.1 | 11.3 | 4.2 | 1.0 | 3.5 | .5 | 9.8 | .4 | 52.5 | -.2 | 100.0 |
| 1969 | 47.1 | 21.1 | 11.3 | 4.4 | 1.1 | 3.5 | .4 | 9.8 | .4 | 52.0 | .9 | 100.0 |
| 1970 | 45.8 | 21.1 | 12.6 | 4.7 | 1.1 | 2.9 | .4 | 9.8 | .4 | 52.9 | 1.3 | 100.0 |
| 1971 | 45.0 | 20.8 | 13.1 | 5.0 | 1.1 | 2.8 | .4 | 9.6 | .5 | 53.5 | 1.5 | 100.0 |
| 1972 | 45.7 | 19.6 | 14.0 | 5.5 | 1.1 | 2.7 | .5 | 9.4 | .7 | 53.4 | .9 | 100.0 |
| 1973 | 46.5 | 16.5 | 14.9 | 6.0 | 1.0 | 2.6 | .5 | 9.8 | .6 | 52.0 | 1.6 | 100.0 |
| 1974 | 44.9 | 17.2 | 16.5 | 6.3 | .9 | 2.5 | .4 | 10.0 | .7 | 54.5 | .5 | 100.0 |
| 1975 | 45.2 | 17.6 | 14.7 | 6.6 | .9 | 2.4 | .4 | 10.5 | .5 | 53.7 | 1.1 | 100.0 |
| 1976 5/ | 43.6 | 17.0 | 17.4 | 7.1 | .9 | 2.3 | .5 | 9.8 | .6 | 55.5 | .9 | 100.0 |

1/ Canned and bulk.
2/ May not add due to rounding.
3/ Minor miscellaneous uses and any inaccuracies of independently determined use items.
4/ Milk marketed by farmers, net imports of ingredients such as frozen cream, butterfat-sugar mixtures and "ice cream", and net change in storage cream.
5/ Preliminary.

than a year earlier. Total cheese production used 44 percent of all milk used in manufactured dairy products, compared with 35 percent only 5 years ago. If this trend continues, conditions in the cheese market will become an increasingly dominant factor in the price of milk for manufacturing.

The milk equivalent of butter rose slightly in 1976, but used only about 20 billion pounds. The amount of milk used in frozen desserts and canned milk was down but cottage cheese and dry whole milk output used more.

Fluid milk and cream sales in 1976, on a milk equivalent basis, rose to just over 51 billion pounds, up slightly from 1975. Although fluid milk sales represented only 44 percent of the market supply of milk on a fat solids basis, about half of the total milk supply was required to provide the actual product pounds of fluid milk and cream sold.

### Early 1977 Dairy Sales Slip

Early 1977 dairy sales were weak as the effects were felt of the harsh winter over much of the Nation. Commercial disappearance of milk in all dairy products (fat solids basis) was down almost 4 percent from 1976 during the first quarter (table 9). Butter sales showed the sharpest decline but commercial use of American cheese and fluid milk also slipped. Although weather apparently dampened dairy sales, it also disrupted normal marketing channels and the commercial disappearance data for January-March may be less reliable than normal.

**Changes in January-March dairy sales from year earlier**

| Item | Change[1] |
|---|---|
| | *Percent* |
| Total milk[2] | -3.7 |
| Manufactured products: | |
| American cheese | -3.1 |
| Other cheese | +4.0 |
| Cottage cheese[3] | +.3 |
| Butter | -15.2 |
| Ice cream | -2.6 |
| Ice milk | +2.0 |
| Canned milk | -11.8 |
| Nonfat dry milk | +5.7 |
| Fluid products: | +.1 |
| Whole milk | -3.5 |
| Skim and lowfat milk | +7.0 |
| Cream and mixtures | [4]-6.5 |

[1] On a daily average basis. [2] On a milk equivalent, fat-solids basis. [3] Creamed and low-fat. [4] January-February.

Although commercial use of other-than-American cheese posted a 4-percent gain, commercial disappearance of American types during January-March was down about 3 percent from a year ago (table 10). Consumer purchasing power posted a small increase from a year earlier during the first quarter but the gain was at least partially offset by higher energy expenditures. Retail American cheese prices averaged lower than in early 1976 but much of that stimulus to commercial use may have been nullified by substantially lower retail meat prices. Although cheese sales obviously were not particularly strong, the preliminary first quarter disappearance data may not accurately reflect commercial use of American cheese.

First quarter butter sales were well below the very strong levels of the previous two years but only slightly below the 1970-74 average. Retail margarine prices averaged slightly below a year ago while retail butter prices were somewhat higher. This kept retail butter sales soft although retailers may also have had unusually large holdings coming out of the yearend holiday season. The largest factor probably was the decline in bulk usage of butter.

Commercial disappearance of nonfat dry milk surged in March to bring the first quarter total above a year ago. Most of the March rise represented a building of user inventories before the support price increase, as actual use probably stayed weak. Substitutes have continued to make inroads on nonfat dry milk use in processed foods and dairy use likely was also down.

Among other products, creamed cottage cheese sales were slightly below last year's level while lowfat cottage cheese sales were up slightly. Commercial disappearance of canned milk was well below a year ago. The harsh winter was hardly conducive to frozen dessert use and ice cream and sherbet sales were down, although ice milk sales were about the same.

Fluid milk sales held close to year-earlier levels during the January-March period, as they had during much of 1976. Gains in lowfat milk sales managed to about offset drops in whole milk. Sales probably would have been a little stronger in some areas had not winter storms disrupted shopping habits and closed schools.

The poor showing during the first quarter of 1977 does not necessarily imply much underlying weakness. The rest of the year could be brisk enough to pull the year's total up to 1976's strong showing. Higher retail prices for beef and expected growth in consumer income should lift cheese sales above a year ago. Even though butter usage probably will be lower, the effects of expected higher retail margarine prices may partially offset the effects of increases in retail butter prices. Cottage cheese and ice cream sales could post small gains.

Fluid milk sales may well total slightly higher than a year ago. The retail price index for nonalcoholic beverages (includes coffee, tea, and car-

Table 9--Commercial disappearance: Total milk, annual and by quarters, 1975-77 1/

| Item | 1975 | 1976 | | | | | 1977 2/ | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | By quarters | | | | Annual | By quarters | | | | Annual |
| | | 1st | 2nd | 3rd | 4th | | 1st | 2nd | 3rd | 4th | |
| | Billion pounds | | | | | | | | | | |
| Production | 115.3 | 29.2 | 32.4 | 30.2 | 28.6 | 120.4 | 29.8 | | | | |
| Farm use | 3.2 | .8 | .8 | .8 | .8 | 3.1 | .7 | | | | |
| Marketings | 112.1 | 28.4 | 31.6 | 29.4 | 27.8 | 117.3 | 29.1 | | | | |
| Beginning commercial stocks | 5.6 | 3.7 | 4.2 | 6.5 | 6.7 | 3.7 | 5.3 | | | | |
| Imports | 1.7 | .4 | .4 | .4 | .7 | 1.9 | .5 | | | | |
| Total supply | 119.4 | 32.5 | 36.2 | 36.3 | 35.2 | 112.9 | 34.9 | | | | |
| Ending commercial stocks | 3.7 | 4.2 | 6.5 | 6.7 | 5.3 | 5.3 | 5.7 | | | | |
| Net removals | 2.0 | 4/ | .1 | .1 | 1.1 | 1.2 | 2.1 | | | | |
| Commercial disappearance | | | | | | | | | | | |
| Actual | 113.6 | 28.3 | 29.6 | 29.6 | 28.8 | 116.4 | 27.0 | | | | |
| Percent change 3/ | +.5 5/ | +3.6 | +5.8 | +1.0 | +2.0 | +2.5 5/ | 3.7 | | | | |

1/ Milk equivalent, fat solids basis. Totals may not add due to rounding. 2/ Preliminary. 3/ From year earlier using unrounded data. 4/ Less than 50 million pounds. 5/ On a daily average basis.

Table 10--Commercial disappearance: Selected dairy products, United States, annual 1968-76, by quarters, 1976-77

| Year and quarter | Butter 1/ | Cheese | | Nonfat dry milk | Canned milk | Frozen products 3/ |
|---|---|---|---|---|---|---|
| | | American 2/ | Other | | | |
| | Mil. lb. | Mil. lb. | Mil. lb. | Mil. lb. | Mil. lb. | Mil. gal. |
| 1968 | 976.0 | 1,213.3 | 803.0 | 1,058.0 | 1,496.8 | 1,082.3 |
| 1969 | 921.9 | 1,281.0 | 861.6 | 1,042.1 | 1,376.1 | 1,092.2 |
| 1970 | 898.2 | 1,398.0 | 909.1 | 983.2 | 1,213.8 | 1,097.3 |
| 1971 | 847.1 | 1,454.8 | 987.0 | 981.8 | 1,186.9 | 1,102.4 |
| 1972 | 885.4 | 1,595.7 | 1,127.8 | 919.2 | 1,102.6 | 1,108.6 |
| 1973 | 855.6 | 1,677.1 | 1,210.2 | 1,110.1 | 1,056.7 | 1,118.6 |
| 1974 | 929.9 | 1,730.6 | 1,276.5 | 809.9 | 999.5 | 1,128.0 |
| 1975 | 947.7 | 1,717.0 | 1,331.8 | 689.5 | 950.8 | 1,176.0 |
| 1976 | 924.2 | 1,918.8 | 1,467.0 | 735.4 | 896.0 | 1,136.9 |
| 1976-1st | 248.3 | 463.4 | 339.0 | 190.0 | 230.1 | 253.7 |
| 2nd | 217.2 | 484.5 | 363.4 | 190.3 | 207.6 | 318.6 |
| 3rd | 212.7 | 480.0 | 371.2 | 201.6 | 216.9 | 334.2 |
| 4th | 245.8 | 491.0 | 393.0 | 153.8 | 241.3 | 230.3 |
| 1977-1st | 208.0 | 443.8 | 349.2 | 198.2 | 200.7 | 246.8 |
| 2nd | | | | | | |
| 3rd | | | | | | |
| 4th | | | | | | |
| | 1976-77 percent change | | | | | |
| | Percent | | | | | |
| 1st 4/ | -15.2 | -3.1 | +4.0 | +5.7 | -11.8 | -1.7 |
| 2nd | | | | | | |
| 3rd | | | | | | |
| 4th | | | | | | |

1/ Imports include butter equivalent of butteroil. 2/ Imports include Colby cheese; stocks do not include processed cheese. 3/ Excludes Mellorine. 4/ On a daily average basis.

bonated soft drinks) likely will climb sharply this year. While most of the increase will be due to coffee (which is not a strong competitor in those age segments of the population which consume the most milk), soft drink prices probably will rise substantially more than retail milk prices. In recent years, fluid milk sales appeared to be stronger when the increases in retail prices of other beverages were larger.

Overall, milk and dairy product sales may be stimulated by a slower year-to-year rise in retail prices than for all foods or all items in the Consumer Price Index. Although the increase in the support price has lowered earlier expectations, some expansion in commercial use is likely for the rest of the year.

One major exception to the fairly strong dairy sales picture is nonfat dry milk. The large increase in the support purchase price might hasten the decline in commercial use of powder, either through switching to whey powder or other substitutes or through the elimination or reduction of the amount used in processed foods. The change in frozen dessert standards scheduled to become effective in June will further diminish the use of nonfat dry milk.

### Per Person Use May Rise In 1977

Per capita consumption of all dairy products in 1977 (on a milk equivalent, fat solids basis) probably will rise slightly. Much larger government donations likely will more than offset expected lower commercial use per person.

With a small growth in cheese sales and a substantial increase in government donations, per person use of cheese likely will rise considerably this year, but the increase may be only half or less of the whopping 1½ pound jump in 1976 (table 11). On the other hand, butter consumption per capita may do well to maintain last year's rate, despite the larger donations. Increased use per person of lowfat milks might come close to offsetting the anticipated decline in whole milk use; on a milk equivalent basis, total fluid sales probably will decline.

Per capita civilian consumption of all dairy products in 1976 was 548 pounds milk equivalent, up slightly from 546 pounds a year earlier. The average American consumed 20.2 pounds of milkfat and 39.3 pounds of milk solids-not-fat (table 12). Unlike the tiny increase in milkfat use, the solids-not-fat consumption was up 1.4 pounds from 1975.

### Commercial Stocks Large

Commercial dairy stocks were very high on April 1. Strong output of manufactured products and sluggish sales were partially responsible but the increases in support purchase prices provided the major impetus for carrying such heavy stocks into the new marketing year. Commercial holdings of milkfat totaled 200 million pounds on April 1, up more than a third from a year ago and also well above 1974's heavy levels. Milkfat holdings have grown steadily since February 1. Stocks of solids-not-fat in commercial hands were 241 million pounds on April 1, also up a third from a year ago but somewhat below the very heavy holdings of two years ago. On a milk equivalent basis, commercial dairy stocks totaled 5.7 billion pounds on April 1, the highest for that date on record. These very large stocks and the expected increase in milk output add up to very heavy supplies of dairy products this spring.

**Dairy product stocks**

| Item | Apr. 1, 1975 | Apr. 1, 1976 | Apr. 1, 1977 |
|---|---|---|---|
| | *Million pounds* | *Million pounds* | *Million pounds* |
| Butter | | | |
| Commercial | 31.6 | 28.1 | 46.4 |
| Total | 60.5 | 31.1 | 111.7 |
| American cheese | | | |
| Commercial | 383.0 | 308.7 | 419.2 |
| Total | 386.2 | 309.4 | 437.5 |
| Other cheese | | | |
| Commercial | 62.0 | 58.5 | 64.8 |
| Nonfat dry milk | | | |
| Manufacturers' | 114.4 | 55.1 | 78.9 |
| Total | 334.9 | 475.2 | 465.4 |
| Milk equivalent[1] | | | |
| Commercial | 5,016 | 4,204 | 5,737 |
| Total | 5,646 | 4,274 | 7,265 |

[1] Total all dairy products.

Commercial interests held near-record levels of more than 46 million pounds of butter on April 1, up almost 16 million pounds from February 1 and 18 million pounds from a year earlier. In fact, commercial butter stocks on April 1, 1977 were higher than the average summer peak of the 1970-73 period.

Commercial holdings on April 1 of 419 million pounds of American cheese were easily record-high and were up a third from a year ago. Stocks of other varieties, however, were moderate. If the support purchase prices had not been raised, it is most likely that much larger sales to the government would have been made in March, and the April 1 commercial holdings of both butter and American cheese would have been much lower.

Manufacturers' stocks of nonfat dry milk were also fairly high. These holdings were 79 million pounds on April 1, up almost half from a year ago

Table 11--Dairy products: Per capita civilian consumption, selected products, United States, 1955-76

| Year | Butter | Cheese | | Cottage cheese | Evaporated and condensed milk | Dry whole milk | Ice cream | Nonfat dry milk | Fluid products 1/ |
|---|---|---|---|---|---|---|---|---|---|
| | | American | Other | | | | | | |
| | | | | | Pounds | | | | |
| 1955 | 9.0 | 5.4 | 2.5 | 3.9 | 16.2 | 0.3 | 18.0 | 5.5 | 348 |
| 1956 | 8.7 | 5.4 | 2.6 | 4.5 | 15.9 | .3 | 18.0 | 5.2 | 348 |
| 1957 | 8.3 | 5.1 | 2.6 | 4.6 | 15.4 | .2 | 18.0 | 5.3 | 344 |
| 1958 | 8.3 | 5.5 | 2.6 | 4.6 | 14.8 | .3 | 17.8 | 5.6 | 337 |
| 1959 | 7.9 | 5.2 | 2.8 | 4.7 | 14.3 | .3 | 18.7 | 6.2 | 330 |
| 1960 | 7.5 | 5.4 | 2.9 | 4.8 | 13.7 | .3 | 18.3 | 6.2 | 322 |
| 1961 | 7.4 | 5.7 | 2.9 | 4.6 | 13.3 | .3 | 18.0 | 6.2 | 312 |
| 1962 | 7.3 | 6.1 | 3.1 | 4.6 | 12.5 | .3 | 17.9 | 6.1 | 308 |
| 1963 | 6.9 | 6.1 | 3.1 | 4.6 | 11.6 | .3 | 18.0 | 5.8 | 307 |
| 1964 | 6.9 | 6.2 | 3.2 | 4.7 | 11.4 | .3 | 18.3 | 5.9 | 304 |
| 1965 | 6.4 | 6.2 | 3.4 | 4.7 | 10.7 | .3 | 18.5 | 5.6 | 302 |
| 1966 | 5.7 | 6.2 | 3.6 | 4.6 | 9.7 | .3 | 18.2 | 5.9 | 297 |
| 1967 | 5.5 | 6.4 | 3.7 | 4.5 | 9.0 | .3 | 17.8 | 5.6 | 285 |
| 1968 | 5.7 | 6.6 | 4.0 | 4.6 | 8.9 | .2 | 18.4 | 5.8 | 280 |
| 1969 | 5.4 | 6.7 | 4.2 | 4.8 | 7.9 | .2 | 18.0 | 5.8 | 272 |
| 1970 | 5.3 | 7.1 | 4.4 | 5.2 | 7.1 | .2 | 17.7 | 5.4 | 264 |
| 1971 | 5.1 | 7.4 | 4.7 | 5.4 | 6.8 | .2 | 17.6 | 5.3 | 259 |
| 1972 | 4.9 | 7.8 | 5.4 | 5.4 | 6.4 | .1 | 17.4 | 4.6 | 263 |
| 1973 | 4.8 | 8.0 | 5.7 | 5.2 | 6.0 | .1 | 17.5 | 5.3 | 257 |
| 1974 | 4.6 | 8.6 | 6.0 | 4.7 | 5.6 | .1 | 17.5 | 4.2 | 246 |
| 1975 | 4.8 | 8.3 | 6.2 | 4.8 | 5.3 | .1 | 18.6 | 3.3 | 245 |
| 1976 2/ | 4.4 | 9.1 | 6.8 | 4.8 | 5.0 | .2 | 17.8 | 3.8 | 245 |

1/ Milk equivalent (fat solids basis) of whole milk, cream items, and skim milk. 2/ Preliminary.

Table 12--Milk solids in all dairy products: Production and disposition, 1965-76

| Year | Production 1/ | Sold by farmers | Civilian disposition | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Consumed on farms where produced 2/ | National School Lunch and Special Milk Programs | USDA donations 3/ | Other | Total | Per capita |
| | Million pounds | | | | | | | Pounds |
| | Milkfat | | | | | | | |
| 1965 | 4,592 | 4,371 | 145 | 113 | 132 | 3,990 | 4,380 | 22.9 |
| 1966 | 4,426 | 4,250 | 129 | 117 | 43 | 4,014 | 4,303 | 22.3 |
| 1967 | 4,377 | 4,189 | 116 | 117 | 114 | 3,826 | 4,173 | 21.4 |
| 1968 | 4,305 | 4,129 | 104 | 117 | 151 | 3,805 | 4,177 | 21.2 |
| 1969 | 4,264 | 4,104 | 94 | 119 | 169 | 3,778 | 4,160 | 20.9 |
| 1970 | 4,283 | 4,134 | 84 | 113 | 157 | 3,794 | 4,148 | 20.6 |
| 1971 | 4,344 | 4,201 | 77 | 113 | 169 | 3,817 | 4,176 | 20.5 |
| 1972 | 4,408 | 4,284 | 71 | 111 | 149 | 3,922 | 4,253 | 20.6 |
| 1973 | 4,221 | 4,100 | 65 | 109 | 136 | 3,924 | 4,234 | 20.3 |
| 1974 | 4,236 | 4,121 | 63 | 107 | 55 | 3,962 | 4,187 | 20.0 |
| 1975 | 4,240 | 4,126 | 60 | 105 | 85 | 3,993 | 4,243 | 20.1 |
| 1976 4/ | 4,409 | 4,293 | 55 | 94 | 29 | 4,105 | 4,283 | 20.1 |
| | Milk solids-not-fat | | | | | | | |
| 1965 | 10,704 | 9,905 | 337 | 275 | 166 | 6,997 | 7,775 | 40.6 |
| 1966 | 10,324 | 9,621 | 301 | 283 | 124 | 7,082 | 7,790 | 40.3 |
| 1967 | 10,223 | 9,594 | 271 | 285 | 130 | 7,024 | 7,710 | 39.5 |
| 1968 | 10,081 | 9,528 | 244 | 288 | 144 | 7,145 | 7,821 | 39.7 |
| 1969 | 9,985 | 9,490 | 221 | 293 | 152 | 7,198 | 7,864 | 39.5 |
| 1970 | 10,059 | 9,622 | 198 | 298 | 153 | 7,368 | 8,017 | 39.8 |
| 1971 | 10,194 | 9,794 | 181 | 300 | 167 | 7,479 | 8,127 | 39.8 |
| 1972 | 10,324 | 9,954 | 167 | 302 | 133 | 7,573 | 8,175 | 39.6 |
| 1973 | 9,923 | 9,581 | 153 | 301 | 69 | 7,764 | 8,287 | 39.8 |
| 1974 | 9,938 | 9,625 | 146 | 301 | 63 | 7,506 | 8,016 | 38.2 |
| 1975 | 9,930 | 9,629 | 140 | 301 | 63 | 7,499 | 8,003 | 37.9 |
| 1976 4/ | 10,351 | 10,064 | 129 | 301 | 49 | 7,867 | 8,346 | 39.3 |

1/ Quantities produced and used, estimated by applying the percentage of milkfat and solids-not-fat in each product to the amount of products. 2/ Fluid milk and cream and farm-churned butter. 3/ Butter, cheese, evaporated milk, nonfat dry milk, and dry whole milk. 4/ Preliminary.

Table 13--Dairy products removed from the commercial market by programs of the U.S. Department of Agriculture, marketing years, 1960-76 1/

| Marketing year beginning April 1 | Removals 2/ | | | | | | Solids content of removals | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Butter 3/ | Cheddar cheese | Dry whole milk | Evaporated milk | Nonfat dry milk 4/ | Milk equivalent | Milkfat | Solids-not-fat | As a percentage of marketings: Milkfat | As a percentage of marketings: Solids-not-fat |
| | Mil. lb. | Mil. lb. | Mil. lb. | Mil. lb. | Mil. lb. | Bil. lb. | Mil. lb. | Mil. lb. | --- Percent --- | |
| 1960 | 154.4 | 0.3 | --- | --- | 837.3 | 3.3 | 130.2 | 804.9 | 3.0 | 8.6 |
| 1961 | 434.8 | 191.2 | --- | --- | 1,275.4 | 11.2 | 420.5 | 1,286.3 | 9.5 | 13.3 |
| 1962 | 346.9 | 134.4 | --- | --- | 1,303.0 | 8.8 | 331.6 | 1,294.8 | 7.5 | 13.2 |
| 1963 | 292.3 | 120.1 | --- | --- | 1,173.6 | 7.5 | 282.2 | 1,168.9 | 6.4 | 11.9 |
| 1964 | 316.5 | 134.3 | --- | --- | 1,223.0 | 8.2 | 306.6 | 1,221.0 | 6.9 | 12.2 |
| 1965 | 126.3 | 21.2 | --- | --- | 880.5 | 2.9 | 114.8 | 854.9 | 2.6 | 8.7 |
| 1966 | 109.2 | 39.9 | --- | --- | 421.0 | 2.7 | 103.6 | 418.4 | 2.4 | 4.4 |
| 1967 | 246.5 | 175.1 | --- | --- | 633.4 | 7.0 | 259.3 | 665.7 | 6.2 | 7.0 |
| 1968 | 186.4 | 66.9 | --- | 54.9 | 555.9 | 4.8 | 179.8 | 567.1 | 4.4 | 6.0 |
| 1969 | 182.1 | 30.6 | --- | 107.5 | 357.6 | 4.4 | 167.4 | 374.6 | 4.1 | 3.9 |
| 1970 | 305.4 | 56.8 | --- | 79.0 | 452.3 | 7.2 | 273.5 | 469.9 | 6.6 | 4.9 |
| 1971 | 262.4 | 87.0 | 0.6 | 102.0 | 463.5 | 6.6 | 250.7 | 494.1 | 5.9 | 5.0 |
| 1972 | 220.2 | 20.1 | 1.5 | 81.2 | 259.9 | 5.0 | 192.4 | 274.1 | 4.5 | 2.8 |
| 1973 | 26.1 | 4.9 | 3.4 | 50.0 | 41.6 | .7 | 27.7 | 53.2 | .7 | .6 |
| 1974 | 66.9 | 93.5 | .9 | 33.7 | 393.6 | 2.4 | 89.6 | 414.8 | 2.2 | 4.3 |
| 1975 | 26.1 | 33.3 | --- | 24.5 | 274.8 | .9 | 35.6 | 279.3 | .9 | 2.9 |
| 1976 5/ | 114.9 | 96.9 | --- | 16.5 | 186.4 | 3.4 | 126.3 | 213.3 | 2.9 | 2.1 |

1/ For earlier years see DS-335, May 1971, page 22. 2/ Delivery basis after domestic unrestricted sales. Includes purchases of butter, cheese, evaporated milk, and nonfat dry milk under Section 709 and section 4(a). 3/ Includes butter equivalent of anhydrous milkfat, and PIK purchases. 4/ Includes PIK certificates issued; beginning January 1972, also includes Title I exports originating from private stocks. 5/ Preliminary.

although well below the burdensome stocks of 2 years earlier. Commercial stocks of nonfat dry milk loom especially large in light of the current weak usage.

The demand for seasonal additions to stocks probably will be very weak this spring, in contrast to last year's strong demand. Not only were stocks large as the industry moved into the flush milk production season, but the expected year-to-year increase in milk output through at least summer has further dampened demand. In addition, government purchases probably will exceed available donation outlets; these stocks would become available to the industry if market conditions unexpectedly become tight enough to push wholesale prices to the sell-back level. This provides some assurance of additional supplies although the recent increase in the sell-back prices (110 percent of the support purchase price for the product instead of 105 percent) diminished its attractiveness.

With the substantial CCC purchases during the first quarter of 1977, government stocks of butter and cheese have grown to the largest early spring levels in several years. The 65 million pounds of butter on April 1 were the largest on that date since 1973, and the 18 million pounds of American cheese were the most since 1969. Although the 386 million pounds of nonfat dry milk held by CCC on April 1 were still quite large, government stocks were down from 420 million pounds a year ago. If the anticipated USDA removals materialize this year, government stocks of dairy products probably will be much higher by the end of 1977.

### USDA Purchases To Be Heavy

If the expected increases in milk production and only small gains in dairy sales materialize, USDA purchases under the price support program could be heavy during the rest of 1977. With commercial stocks already high, most of the difference between farm marketings and commercial use will move fairly rapidly into government hands. Added to the substantial quantities already purchased, CCC purchases this year probably will be the largest in at least six years.

Government removals of butter and cheese in the first four months of the year were already larger than the annual totals of recent years. The January-April net removals of butter totaled 101 million pounds, higher than any annual total since 1972. Similarly, 66 million pounds of American cheese were removed from the commercial market, larger than any annual level but one since 1971. With the addition of small amounts of canned milk, these purchases were equivalent to 2.7 billion pounds of milk. Purchases of nonfat dry milk were also large during January-April. Net removals totaled 88 million pounds, more than triple the year-earlier level but less than half of two years ago.

**USDA dairy purchases**

| Item | January-April | | |
|---|---|---|---|
| | 1976 | 1977 | Change |
| | *Million pounds* | *Million pounds* | *Percent* |
| Butter | .4 | 101.4 | * |
| American cheese | .5 | 65.5 | * |
| Nonfat dry milk | 24.8 | 87.7 | +253.6 |
| Evaporated milk | 10.6 | 2.9 | -72.6 |
| Milk equivalent | 36 | 2,747 | * |

*More than 1,000.

During the 1976/77 marketing year, CCC net removals came to 126 million pounds of milkfat and 213 million pounds of milk solids-not-fat, just under 3 percent and just over 2 percent, respectively, of farm marketings (table 13). The past marketing year was the first since 1973/74 in which a higher proportion of milkfat than solids-not-fat was removed from the commercial market. Government purchases were equivalent to 3.4 billion pounds of milk (fat-solids basis).

USDA purchased 115 million pounds of butter and 97 million pounds of American cheese, several times the removals of the prior year and the largest since 1972/73. Virtually all of this butter and the vast bulk of the cheese was bought during the last half of the marketing year. On the other hand, the net removals of 186 million pounds of nonfat dry milk were only about two-thirds of the previous year's level and the lowest in 3 years. Slightly less canned milk was purchased for donation use.

**Uncommitted CCC stocks**

| Item | April 30 | |
|---|---|---|
| | 1976 | 1977 |
| | *Million pounds* | *Million pounds* |
| Butter (bulk) | --- | 110.0 |
| Cheddar cheese | .1 | 39.1 |
| Nonfat dry milk | 384.7 | 438.7 |

## FOREIGN TRADE AND DAIRY TRENDS

### Cheese Imports Greater In Early 1977

Imports of cheese during the first quarter were up 8 percent from a year ago, with both quota types and nonquota types contributing (table 14). These imports were almost a tenth above the Jan-

Table 14--Dairy products: U.S. imports, quota and non-quota, total 1976, and January-March, 1976-77 1/

| Product | Calendar year quota | 1976 imports | March | | | Cumulative, January-March | | |
|---|---|---|---|---|---|---|---|---|
| | | | 1976 | 1977 | 1977 as a % of 1976 | 1976 | 1977 | 1977 as a % of 1976 |
| | Thou. lb. | Thou. lb. | Thou. lb. | Thou. lb. | Pct. | Thou. lb. | Thou. lb. | Pct. |
| Cheese, quota types | | | | | | | | |
| American-Cheddar | 10,037.5 | 7,984 | 104 | 99 | 95 | 908 | 2,488 | 274 |
| -Other | 6,096.6 | R 6,241 | --- | 11 | --- | 686 | 657 | 96 |
| Italian-Original loaves | 11,500.1 | 11,060 | 1,578 | 824 | 52 | 2,998 | 3,124 | 104 |
| -Other | 1,494.0 | 1,276 | 196 | 123 | 63 | 323 | 406 | 126 |
| Edam and Gouda-Natural | 9,200.4 | (9,023) | (771) | (453) | (59) | (1,365) | (1,251) | (92) |
| -Processed | 3,151.0 | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) | ( ) |
| Blue Mold | 5,017.0 | 4,593 | 251 | 180 | 72 | 625 | 577 | 92 |
| Swiss-Emmenthaler, -$1.00 * | 20,420.0 | 12,435 | 1,516 | 525 | 35 | 3,107 | 2,302 | 74 |
| -Gruyere-process, -$1.00 * | 11,242.0 | 8,690 | 283 | 472 | 168 | 1,638 | 1,042 | 64 |
| Other-Over 0.5% fat, -$1.00 * | 40,730.0 | 31,116 | 556 | 401 | 72 | 1,559 | 2,592 | 166 |
| -Under 0.5% fat | 8,901.0 | 4,741 | 176 | 4 | 2 | 920 | 71 | 8 |
| Total | 127,789.6 | R 97,159 | 5,430 | 3,092 | 57 | 14,128 | 14,509 | 103 |
| Cheese, non-quota types | | | | | | | | |
| Swiss-Emmenthaler, $1.00 + * | | 48,499 | 4,592 | 3,932 | 86 | 9,840 | 11,170 | 114 |
| -Gruyere-process, $1.00 + * | | 6,741 | 555 | 404 | 73 | 1,256 | 1,482 | 118 |
| Other, $1.00 + * | | 34,405 | 3,010 | 3,010 | 100 | 7,168 | 8,009 | 112 |
| Pecorino | | 16,728 | 1,639 | 1,349 | 82 | 4,924 | 4,661 | 95 |
| Roquefort | | 1,560 | 207 | 445 | 215 | 458 | 660 | 144 |
| Other 2/ | | 2,053 | 76 | 233 | 307 | 340 | 582 | 171 |
| Total | | 109,985 | 10,080 | 9,374 | 93 | 23,986 | 26,563 | 111 |
| Other quota products | | | | | | | | |
| Butter | 707.0 | 528 | 40 | 76 | 190 | 118 | 209 | 177 |
| Butteroil | 1,200.0 | 1,200 | --- | --- | --- | 1,200 | 1,200 | 100 |
| Butterfat mixtures | 2,580.0 | 2,468 | 343 | 42 | 12 | 684 | 1,066 | 156 |
| Ice cream | 3,377.3 | --- | --- | --- | --- | --- | 1,478 | --- |
| Frozen cream | 12,540.0 | 12,964 | 597 | 822 | 138 | 5,487 | 6,644 | 121 |
| Nonfat dry milk | 1,807.0 | 1,807 | --- | 99 | --- | 715 | 274 | 38 |
| Dried buttermilk | 496.0 | 444 | --- | --- | --- | 137 | 179 | 131 |
| Evaporated milk | 1,312.0 | 28 | --- | --- | --- | 1 | --- | --- |
| Condensed milk | 4,079.0 | 639 | 40 | 21 | 53 | 66 | 291 | 441 |
| Chocolate crumb-Regular | 17,000.0 | 8,484 | 269 | 357 | 133 | 1,185 | 357 | 30 |
| -Lowfat | 4,680.0 | 2,140 | --- | --- | --- | 140 | --- | --- |
| Animal feed with milk solids | 16,300.0 | 12,226 | 753 | 1,201 | 159 | 2,504 | 3,958 | 158 |
| Non-quota products | | | | | | | | |
| Casein | | 112,141 | 8,254 | 12,794 | 155 | 25,334 | 35,520 | 140 |
| Lactose | | 1,268 | 136 | 90 | 66 | 302 | 166 | 55 |
| Milk equivalent, fat solids basis total all products | 1,305,620 | R1,938,131 | 139,261 | 115,783 | 83 | 421,747 | 481,647 | 114 |

1/ Preliminary. 2/ Gjetost, Bryndza, Gammelost and Noekkelost, and Goya.
*Price break effective October 19, 1976.
R = Revised.

uary-March average of 1970-73. However, imports now account for a smaller proportion of the U.S. cheese market than in the early 1970's. The generally higher retail prices of imported cheese and the greater availability of domestically-produced specialty types have tended to diminish the market share of imported cheese.

Most of the other quota products were imported in larger quantities during January-March, as only imports of nonfat dry milk and chocolate crumb were below year-earlier levels. Some "ice cream" was imported this year for the first time since May 1972. Among nonquota items, considerably more casein than a year ago but little lactose was imported.

U.S. dairy trade (milk equivalent)

| Item | January-March | | |
|---|---|---|---|
| | 1975 | 1976 | 1977 |
| | *Million pounds* | *Million pounds* | *Million pounds* |
| Imports: | | | |
| Cheese | 265 | 310 | 343 |
| Other products | 83 | 112 | 139 |
| Total | 348 | 422 | 382 |
| Exports | 120 | 132 | 107 |
| Shipments[1] | 117 | 140 | 123 |

[1] To U.S. territories.

Imported dairy products were equivalent to about 0.5 billion pounds of milk during January-March, up 14 percent from a year earlier. Over half of the increase was due to higher cheese imports.

For all of 1977, cheese imports could be slightly higher than last year if cheese sales remain strong. Quota products, however, will be limited to small amounts by the import quota system.

Cheese represented more than three-fourths of the value of 1976 dairy imports. The sharp increase in the value of cheese imports was due to both higher prices and larger quantities. Although the amount of cheese imported from the EC remained about the same as in 1975, the EC's share of cheese imports declined, as other countries (especially Argentina, Finland, New Zealand, Norway, and Switzerland) shipped more.

The "pricebreak" level, which controls the quota status of Swiss-type and the miscellaneous category of "Other" cheese, was raised to $1.05 per pound, f.o.b country of origin, effective May 5. The increase from $1.00 was mandated by the recent increase in the support purchase price for Cheddar cheese.

Exports during the first quarter of 1977 were equivalent to 0.1 billion pounds of milk (fat-solids basis), down slightly from 1976. Lower exports of dry whole milk and canned milk (which generally account for over half of the milk equivalent total) outweighed slightly higher exports of cheese and infant and dietetic foods.

Almost 28 million pounds of nonfat dry milk were exported during January-March, almost all of it donated under Title II of the Food for Peace Program (PL 480). Less than a million pounds were exported during the same period of 1976. Exports of lactose were also considerably higher.

Commerical exports of dairy products probably will remain small in 1977. Cheaper sources of most dairy products are generally available to importing countries. Donations of nonfat dry milk under P.L. 480 could be a different matter. Even though powder is programmed for donation only through September 30, large quantities of nonfat dry milk will

Table 15—Imports, exports, and shipments of dairy products, 1965-76[1]

| Year | Imports | | Exports | | Shipments[2] | |
|---|---|---|---|---|---|---|
| | Quantity | Percent of production | Quantity | Percent of production | Quantity | Percent of production |
| | *Million pounds* | *Percent* | *Million pounds* | *Percent* | *Million pounds* | *Percent* |
| 1965 | 923 | .7 | 1,836 | 1.5 | 522 | .4 |
| 1966 | 2,791 | 2.3 | 778 | .6 | 430 | .4 |
| 1967 | 2,908 | 2.4 | 363 | .3 | 461 | .4 |
| 1968 | 1,780 | 1.5 | 1,185 | 1.0 | 586 | .5 |
| 1969 | 1,621 | 1.4 | 921 | .8 | 498 | .4 |
| 1970 | 1,878 | 1.6 | 438 | .4 | 548 | .5 |
| 1971 | 1,356 | 1.1 | 2,458 | 2.1 | 568 | .5 |
| 1972 | 1,694 | 1.4 | 1,469 | 1.2 | 677 | .6 |
| 1973 | 3,859 | 3.3 | 654 | .6 | 638 | .6 |
| 1974 | 2,923 | 2.5 | 582 | .5 | 576 | .5 |
| 1975 | 1,669 | 1.4 | 547 | .5 | 496 | .4 |
| 1976[3] | 1,938 | 1.6 | 502 | .4 | 520 | .4 |

[1] Milk equivalent, fat solids basis. [2] To U.S. territories. [3] Preliminary.

be available for foreign donation if budgetary and other problems can be overcome.

Slightly more than 0.1 billion pounds milk equivalent was shipped to U.S. Territories during January-March, almost exactly the same as a year ago. Less butter and canned milk were shipped but cheese and dry whole milk shipments were higher. In addition, more nonfat dry milk was shipped. Shipments to U.S. Territories are unlikely to change substantially this year.

### European Milk Output Up Only Slightly

Milk deliveries in the EC were only slightly above a year ago (on a daily average basis) during early 1977. Of the member countries, most were about the same to slightly higher except for Ireland's large increase and a small decline in Belgium. Elsewhere in Western Europe, both Switzerland and Austria produced considerably more milk than last year.

Milk production was down considerably at the start of 1977 in Australia and Canada (where supply management measures continue to be used). On the other hand, New Zealand appears headed for a record high in their 1976/77 season. Output was quite strong during the first 7 months although farmers there are drying off their cows earlier than last year.

Stronger cheese sales have pulled most of the increase in West European milk output into cheese production. The offsetting increases in production and sales left cheese stocks in many West European countries similar to a year ago. Cheese output was lower in both Canada and Australia due to the reduced milk production. New Zealand cheese production has been lower in their current dairy season as more milk has been used for butter.

EC butter production totaled slightly lower in early 1977 and was mixed in other West European countries. However, EC intervention stocks of butter were almost two-thirds higher than a year earlier at the end of March. The EC has made some subsidized sales of butter to the USSR but future sales are uncertain due to the controversy which has been generated. Butter output in Canada and Australia was down sharply but was much higher than a year ago in New Zealand.

Nonfat dry milk production was generally below a year earlier in most major dairy countries, in line with the lower butter output. In the case of New Zealand, reduced powder production has been accomplished by a sharp diversion of skim milk into casein production. Casein output in West Europe and Australia has been lower. Intervention stocks of nonfat dry milk in the EC have been trimmed but remain quite large. At the end of March, these stocks were down almost a fourth from a year earlier. Intervention stocks in 8 EC countries (excludes Italy) fell below a million metric tons in February and March for the first time since August 1975.

There may be reason to hope that the oversupply conditions in the world dairy markets might not worsen substantially in 1977. EC dairy farmers will receive only a slightly higher net price for milk as a year ago and this may help to dampen upward pressure on milk production. However, the drought in 1976 reduced milk output from what it would have been. Lower Canadian and Australian output will also ease the supply pressure on world markets but some of this may be nullified by production gains in New Zealand. Even if milk production in the major dairy trading countries is brought fairly well in line with consumption, it could take considerable time to work off the current heavy stocks.

Table 16.--U.S. Dairy Situation at a Glance

| Item | Unit or base period | 1975 | 1976 | | | | | 1977 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Apr. | Feb. | Mar. | Apr. | May | Year | Feb. | Mar. | Apr. |
| Production and cow numbers: | | | | | | | | | | |
| Total milk | Mil. lb. | 10,088 | 9,308 | 10,302 | 10,480 | 11,108 | 120,356 | 9,351 | 10,562 | 10,741 |
| Milk per cow | Lb. | 903 | 841 | 931 | 948 | 1,006 | 10,893 | 849 | 960 | 977 |
| Number of milk cows | Thou. | 11,172 | 11,071 | 11,060 | 11,058 | 11,047 | 11,049 | 11,013 | 11,003 | 10,989 |
| Prices received by farmers: | | | | | | | | | | |
| All milk, sold to plants, 100 pounds | Dol. | 8.18 | 9.79 | 9.72 | 9.37 | 9.23 | 9.66 | 9.54 | 9.43 | 9.48 |
| Percentage of parity 1/ | Pct. | 76 | 78 | 80 | 78 | 80 | 80 | 72 | 72 | 74 |
| Manufacturing grade milk, 100 pounds | Dol. | 7.06 | 8.45 | 8.53 | 8.50 | 8.31 | 8.58 | 8.41 | 8.46 | 8.61 |
| Parity equivalent | Dol. | 9.31 | 10.08 | 10.16 | 10.25 | 10.08 | 10.18 | 10.84 | 10.93 | 11.01 |
| Fat content | Pct. | 3.67 | 3.71 | 3.66 | 3.62 | 3.58 | 3.66 | 3.74 | 3.70 | 3.64 |
| Minnesota-Wisconsin (3.5% fat), 100 pounds | Dol. | 6.94 | 8.25 | 8.60 | 8.46 | 8.30 | 8.48 | 8.16 | 8.31 | 8.60 |
| Milk eligible for fluid market, 100 pounds | Dol. | 8.46 | 10.20 | 10.00 | 9.62 | 9.50 | 9.97 | 9.82 | 9.67 | 9.68 |
| Price ratios and dairy ration values: | | | | | | | | | | |
| Milk-feed | Lb. | 1.31 | 1.58 | 1.58 | 1.53 | 1.49 | 1.53 | 1.48 | 1.47 | 1.47 |
| Manufacturing grade milk-hog | Lb. | .18 | .18 | .19 | .18 | .17 | .21 | .21 | .23 | .24 |
| Manufacturing grade milk-beef cattle | Lb. | .22 | .25 | .25 | .22 | .23 | .26 | .25 | .25 | .25 |
| Value of concentrate ration fed milk cows | Dol. | 6.25 | 6.18 | 6.18 | 6.13 | 6.22 | 6.30 | 6.44 | 6.40 | 6.47 |
| Farm cash receipts from dairy products | Mil. dol. | ----- REVISED MONTHLY DATA NOT AVAILABLE ----- | | | | | 11,426 | 880 | 980 | |
| Production of factory products: | | | | | | | | | | |
| Creamery butter | Mil. lb. | 102.7 | 85.4 | 89.3 | 87.6 | 94.0 | 983.8 | 96.2 | 98.4 | |
| American cheese, whole milk | Mil. lb. | 151.5 | 149.7 | 165.8 | 187.2 | 204.1 | 2,046.7 | 158.8 | 183.4 | |
| Cheese, other than American | Mil. lb. | 92.9 | 91.5 | 109.1 | 109.8 | 109.5 | 1,280.4 | 95.2 | 115.8 | |
| Canned milk, unskimmed | Mil. lb. | 80.2 | 73.3 | 86.6 | 94.9 | 89.5 | 929.1 | 63.3 | 68.8 | |
| Dry whole milk | Mil. lb. | 4.0 | 6.7 | 6.5 | 7.4 | 9.8 | 79.5 | 6.4 | 7.6 | |
| Frozen products 2/ | Mil. gal. | 97.7 | 77.4 | 102.0 | 99.9 | 100.6 | 1,136.9 | 75.7 | 101.1 | |
| Creamed cottage cheese | Mil. lb. | 75.6 | 69.6 | 82.7 | 78.5 | 77.6 | 883.9 | 69.5 | 81.5 | |
| Total whole milk equivalent 3/ | Mil. lb. | 5,508 | 4,830 | 5,494 | 5,714 | 6,085 | 63,471 | 5,100 | 5,838 | |
| Nonfat dry milk, human use | Mil. lb. | 107.7 | 71.1 | 78.4 | 87.6 | 104.9 | 937.6 | 72.3 | 87.5 | |
| Wholesale prices: | | | | | | | | | | |
| Butter, 92-score, Chicago, pound | Ct. | 69.2 | 80.9 | 86.0 | 89.5 | 89.9 | 92.0 | 90.8 | 92.7 | 100.1 |
| Cheese, American (40-pound blocks), f.o.b. Wisconsin assembling points, pound | Ct. | 78.8 | 90.0 | 94.4 | 96.9 | 94.9 | 96.3 | 92.6 | 93.8 | 97.9 |
| Evaporated milk, case (mid-point of range) | Dol. | 12.08 | 13.78 | 13.78 | 13.78 | 13.54 | 13.67 | 13.34 | 13.62 | |
| Dry whole milk, pound | Ct. | 64.1 | 78.2 | 78.5 | 78.6 | 77.9 | 79.4 | 78.1 | 78.3 | |
| Nonfat dry milk, pound | Ct. | 60.7 | 64.3 | 63.5 | 63.1 | 62.8 | 63.5 | 62.3 | 62.8 | |
| Dairy products and ice cream index (BLS) | 1967=100 | 148.9 | 163.4 | 166.7 | 167.7 | 167.1 | 168.4 | 166.9 | 168.1 | 173.6 |
| Retail prices (BLS): | | | | | | | | | | |
| Milk, fresh, grocery, half-gallon | Ct. | 78.5 | 82.7 | 82.8 | 82.6 | 82.0 | 82.7 | 83.6 | 83.5 | |
| Evaporated milk, 14½-ounce can | Ct. | 30.5 | 33.8 | 34.0 | 34.1 | 34.1 | 34.3 | 35.1 | 35.2 | |
| Cheese, American, processed, sliced, ½-pound package | Ct. | 73.8 | 86.7 | 85.6 | 84.9 | 85.7 | 86.5 | 84.0 | 84.3 | |
| Butter, pound | Ct. | 95.4 | 123.1 | 117.8 | 119.8 | 120.6 | 126.1 | 126.8 | 127.4 | |
| Ice cream, half-gallon | Ct. | 122.0 | 126.8 | 125.6 | 125.8 | 125.3 | 127.1 | 130.7 | 131.2 | |
| Dairy products index | 1967=100 | 154.8 | 168.5 | 167.9 | 167.9 | 167.4 | 169.3 | 171.1 | 171.2 | |
| All foods index | 1967=100 | 171.2 | 180.0 | 178.7 | 179.2 | 179.9 | 180.8 | 187.7 | 188.6 | |
| Margarine, colored, pound | Ct. | 67.4 | 54.3 | 53.5 | 51.7 | 51.6 | 52.6 | 52.9 | 53.2 | |
| Stocks, end of month: | | | | | | | | | | |
| Creamery butter | Mil. lb. | 66.7 | 16.5 | 31.1 | 44.0 | 69.5 | --- | 94.3 | 111.7 | |
| Cheese, total 4/ | Mil. lb. | 441.5 | 361.4 | 367.9 | 393.7 | 436.1 | --- | 470.6 | 502.3 | |
| Canned milk, unskimmed | Mil. lb. | 60.3 | 49.6 | 57.4 | 76.8 | 104.6 | --- | 63.5 | 63.0 | |
| Dry whole milk | Mil. lb. | 5.0 | 7.9 | 7.5 | 9.2 | 10.7 | --- | 8.8 | 8.5 | |
| Total whole milk equivalent 5/ | Mil. lb. | 5,715 | 3,899 | 4,274 | 4,846 | 5,860 | --- | 6,588 | 7,265 | |
| Nonfat dry milk | Mil. lb. | 328.4 | 460.0 | 475.2 | 443.1 | 463.8 | --- | 469.5 | 465.4 | |
| Commercial disappearance: | | | | | | | | | | |
| Creamery butter | Mil. lb. | 84.9 | 77.2 | 74.8 | 75.2 | 69.1 | 924.2 | 53.8 | 82.2 | |
| Cheese, American | Mil. lb. | 146.3 | 151.2 | 158.7 | 161.9 | 161.1 | 1,918.8 | 154.0 | 140.0 | |
| Cheese, other than American | Mil. lb. | 103.2 | 100.6 | 126.0 | 120.5 | 120.6 | 1,467.0 | 106.7 | 130.5 | |
| Canned milk, unskimmed | Mil. lb. | 72.5 | 65.5 | 76.6 | 72.0 | 60.0 | 896.0 | 65.3 | 68.6 | |
| Milk in all products | Mil. lb. | 9,475 | 8,970 | 9,803 | 9,753 | 9,949 | 116,397 | 8,318 | 9,679 | |
| Nonfat dry milk | Mil. lb. | 41.4 | 62.6 | 66.9 | 62.3 | 66.9 | 735.4 | 54.0 | 91.2 | |
| USDA net removals: | | | | | | | | | | |
| Butter | Mil. lb. | 14.6 | --- | --- | .4 | --- | 39.4 | 31.5 | 11.6 | 25.9 |
| Cheddar cheese | Mil. lb. | 10.9 | --- | --- | .5 | 1.1 | 38.0 | 23.3 | 17.8 | 6.6 |
| Nonfat dry milk | Mil. lb. | 72.5 | 6.6 | 5.9 | 5.6 | 16.0 | 157.1 | 21.3 | 2.4 | 37.2 |
| Evaporated milk | Mil. lb. | 1.8 | 2.7 | 2.2 | 3.5 | 1.7 | 21.8 | .8 | .7 | 1.0 |
| Total whole milk equivalent | Mil. lb. | 412 | 6 | 5 | 20 | 15 | 1,236 | 883 | 417 | 602 |
| Fluid sales, change from year earlier: 6/ | | | | | | | | | | |
| Whole milk | Pct. | +.2 | -3.2 | -.8 | -3.0 | -2.3 | -1.9 | -3.6 | -4.0 | |
| Low-fat and skim milk | Pct. | +13.1 | +7.5 | +9.5 | +6.2 | +7.1 | +7.6 | +6.0 | +7.4 | |
| Total fluid milk | Pct. | +4.0 | +.2 | +2.5 | +.1 | +.7 | +1.0 | -.3 | -.2 | |
| Cream and cream mixtures | Pct. | +7.2 | -.6 | -3.2 | +9.2 | -3.2 | +3.2 | -3.4 | N.A. | |

1/ Seasonally adjusted price as percentage of parity price.
2/ Ice cream, ice milk, and sherbet.
3/ Includes manufactured products for which current monthly series are available.
4/ Natural, plus process American cheese held by CCC.
5/ Excludes cream and bulk condensed milk.
6/ Daily average sales in Federal and State Marketing areas.
NA = Not available.

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